REPORT RESUMES

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STAFFING AMERICAN COLLEGES AND UNIVERSITIES, THE DEMAND FOR FACULTY AND OTHER PROFESSIONAL STAFF IN HIGHER EDUCATION, NOVEMBER 1963 THROUGH OCTOBER 1969.

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THE DEMAND FOR FACULTY AND OTHER PROFESSIONAL STAFF IN HIGHER EDUCATION IS PROJECTED FROM NOVEMBER 1963 THROUGH OCTOBER 1969. PROJECTIONS ARE BASED ON QUESTIONNAIRE DATA COLLECTED FROM 1809 HIGHER EDUCATION INSTITUTIONS EMPLOYING A TOTAL OF 349,386 FULL-TIME AND PART-TIME PROFESSIONAL STAFF IN 1963. BY 1969, HIGHER EDUCATION INSTITUTIONS ESTIMATE A NEED FOR AN ADDITIONAL 199,138 FULL-TIME PROFESSIONAL STAFF MEMBERS. DATA ARE PRESENTED IN FIVE GENERAL CATEGORIES--(1) NATIONAL TOTALS, (2) INSTITUTION TYPE, (3) PUBLIC AND PRIVATE INSTITUTIONS, (4) SIZE OF FACULTY AND OTHER PROFESSIONAL STAFF, AND (5) REGIONAL TOTALS. IN 1963, STAFF DISTRIBUTION CONSISTED OF 55,160 IN ADMINISTRATION, 284,698 IN ACADEMIC FIELDS, AND 9078 IN TECHNICAL AND SEMIPROFESSIONAL FIELDS. IN 1963, 40.3 PERCENT OF THE DEGREES EARNED WERE DOCTORATES, 41.4 PERCENT MASTER'S, AND 18.3 PERCENT BACCALAUREATE. PUBLIC INSTITUTIONS EMPLOYED 60 PERCENT AND PRIVATE INSTITUTIONS 40 PERCENT OF THE FULL-TIME STAFF. THESE PERCENTAGES ARE EXPECTED TO BE 65.2 AND 34.8 RESPECTIVELY IN 1969. A MAJORITY OF THE INSTITUTIONS EXPECT AN INCREASE IN CLASS SIZE AND IN FACULTY TIME DEVOTED TO RESEARCH. THIS DOCUMENT IS AVAILABLE FOR $0.65 FROM THE SUPERINTENDENT OF DOCUMENTS, U.S. GOVERNMENT PRINTING OFFICE, WASHINGTON, D.C. 20402. (HW)

Staffing American Colleges and Universities

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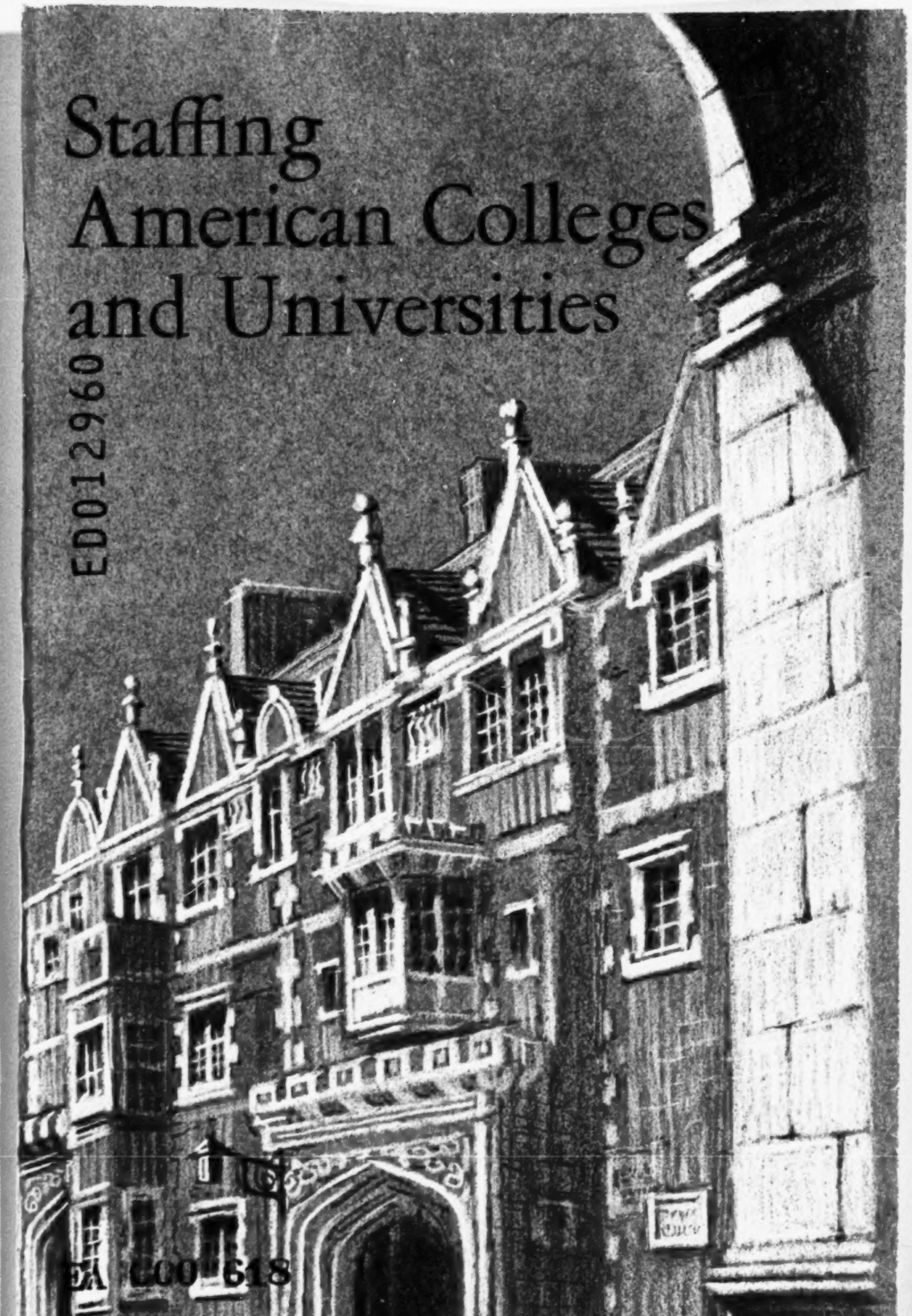

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HIGHLIGHTS

*This study covers 1,809 institutions of higher education and they enrolled 97.1 percent of all students at American colleges and universities in October 1963.

*The response rate to the mailed questionnaire was 92.2 percent.

*These colleges and universities employed a total of 349,386 professional staff: 264,613 full-time and 84,773 part-time.

*The institutions estimate that they will need 199,138 full-time professional staff' 51,438 for replacements and 147,700 for additions, from November 1963 through October 1969.

*The total professional staff was distributed in the following manner: *Administration*—55,160 (15.9 percent); *academic fields*—284,698 (81.5 percent); *technical and semiprofessional fields*—9,078 (2.6 percent).

*Of the total professional staff, 40.3 percent held the doctorate, 41.4 percent the master's, and 18.3 percent the baccalaureate, as the highest earned degree.

*Public institutions employed 60 percent and private ones 40 percent of the full-time staff in institutions covered by this study. At the same time, the former enrolled 67.1 percent and the latter 32.9 percent of the total number of students.

*In the fall of 1969, public institutions expect to be employing 65.2 percent and the private ones 34.8 percent of the total full-time professional staff. The former expect to be enrolling 71.7 percent and the latter 28.3 pecent of the total number of students.

*The large liberal arts colleges, teachers colleges, and 2-year institutions expect to grow at a considerably faster rate than their smaller counterparts from 1963 through 1969. On the other hand, the small universities and technological schools expect a higher rate of growth than do their larger counterparts.

*The October 1963 totals for professional staff and for enrollment are distributed percentage-wise by type of institution as follows:

	Staff	*Enrollment*
Universities and technological schools	52.7	43.0
Liberal arts colleges and teachers colleges	34.5	37.7
Junior colleges, technical schools, and semiprofessional schools	12.8	19.3

*The October 1963 totals for professional staff and for enrollment are distributed percentage-wise by region as follows:

	Region I	*Region II*	*Region III*	*Region IV*
Staff	32.1	28.3	18.2	21.4
Enrollment	29.6	28.9	15.3	26.2

*The percent of each region's full-time staff holding earned doctor's degrees is the following: Region I—44.1, region II—43.1, region III—34, and region IV—40.7.

*During the 6 years from November 1963 through October 1969, a majority of the institutions responding to the questionnaire expect an increase in class size and in faculty time devoted to research.

OE-53028

Staffing American Colleges and Universities

The Demand for Faculty and Other Professional Staff in Higher Education November 1963 Through October 1969

by

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Faculty Staffing

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

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FOREWORD

The present and future need for faculty in institutions of higher education in the United States is a matter of direct concern to college and university administrators, present and future college students, their parents, and society as a whole. All are concerned that there be well-qualified people in sufficient supply to meet the demand.

Realizing that the current decade alone is expected to witness a doubling of enrollments in higher education, the U.S. Office of Education has undertaken a study of the demand for faculty and other professional staff at that level. Using the fall of 1963 as a base point, the Office collected data regarding the distribution of professional staff by highest earned degree in 125 fields; and the cooperating institutions themselves provided estimates of the demand for staff from the fall of 1963 through the fall of 1969.

The findings of this study should be meaningful to all concerned with staffing our colleges and universities during the present decade and beyond.

The Office of Education wishes to express appreciation to the many college and university administrators and to the officers of higher education agencies and associations who cooperated in the study.

During the early preparation for the study the author was assisted by the late Dr. Ernest V. Hollis, Director of the College and University Administration Branch; and by Dr. John H. Russel, Acting Chief of the Faculty and Student Services Section, who is now Professor of Higher Education at the University of Toledo.

Peter P. Muirhead,
Associate Commissioner,
Bureau of Higher Education

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Appendix

The Survey Questionnaire 201

Part One: Background

Introduction

The need for qualified faculty and staff for our colleges and universities is of direct concern to many individual American citizens and to our society. The competing demands from many quarters for such personnel has resulted in a manpower situation that is critical to the attainment of the Nation's goals.

The current decade is expected to witness a doubling of enrollments in higher education. A very real concern abounds that the availability of qualified faculty members and other professional staff may not keep pace with the demand. If it does not, then the quality of higher education for the immediate future will be in jeopardy.

History of the Study

When considering the advisability and feasibility of undertaking a study of higher education's demand for professional staff, the Office of Education sought the advice of a number of nationally recognized leaders in colleges and universities. This advisory group was unanimous in endorsing such a study and it offered certain suggestions which helped to define its scope and insure the usefulness of its findings to the higher education community.

Three of the group's suggestions were of such importance that they are noted here: (1) the proposed study should be national in scope: (2) it should cover as many types of higher education institutions as practicable; and (3) it should break down subject-matter fields in sufficient detail to give the data precise meaning in the academic marketplace.

The Office then contacted representatives of a number of national professional organizations in higher education and of other interested Federal agencies. Their suggestions regarding the proposed study, added to those of the advisory group and of various specialists within the Office, resulted in a tentative list of detailed fields.

A pretest was conducted among 25 selected colleges and universities, using the questionnaire already devised as the instrument for collecting the data. These institutions, both public and private, represented the three groups (seven types altogether) which had been established for the study's purposes as a result of the consensus of advice received. The group and type breakdown was as follows: *Group I*—universities and technological schools; *group II*—liberal arts colleges and teachers colleges; *group III*—2-year institutions (junior colleges, technical schools, and semiprofessional schools). A total of 24 of the 25 institutions (96 percent) responded to the questionnaire and many respondents offered suggestions to improve and clarify the instrument. Among the suggestions were persuasive ones to increase the number of fields beyond the number used in the pretest. This advice, supported by other interested Federal agencies, resulted in the final number of 125 which appeared in the questionnaire [1]—fewer than the number advocated by some, but more than the original total and as many as practical considerations deemed advisable.

Purpose and Scope of the Study

The major purpose of this study was to determine the demand for professional staff in higher education from November 1963 through October 1969 as estimated by the institutions themselves. The institutions also indicated the highest earned degrees held by both full- and part-time staff as of October 1963, and their need for staff replacements and additions from November 1963 through October 1969, in 125 fields. In arriving at these estimates, the institutions were asked to consider plans for new and expanded programs as well as to project increases in enrollments. All professional staff were to be accounted for, including those in instruction, administration, research, and service functions. Since college and university administrators come to grips with the responsibilities for institutional planning and staffing, the Office of Education has deemed their professional judgment to be of singular importance in this area.

The findings of this study should be useful to employing officers of colleges and universities, to deans of graduate and professional schools, to advisors of both undergraduates and graduates, and to students who are planning for careers in higher education. The information may be of particular significance to those who are responsible for establishing educational policy, including public policy related to education. Future legislative efforts designed to prevent or alleviate shortages in fields deemed critical to the public interest may garner support from these findings.

Related Studies

There has been a veritable babel of vocies regarding the demand for professional staff in higher education. Some of the confusion is attributable to the difficulties inherent in predicting enrollments with reasonable accuracy at a time when they are increasing rapidly. In recent years, practically all enrollment projections have been revised upward within 2 or 3 years from the time they were made. The magnitude of the potential growth in college enrollments is so great that past experience is of little help. During the 10 years before 1960, the college-age population (18–21 inclusive) increased by 335,164. Projections of this population group point to an increase of 5,216,392 during the decade following 1960, a rate more than 15 times that of the earlier one.[2]

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[1] See appendix for a copy of the questionnaire and related materials used in the study.

Dr. O. C. Carmichael, in his study of graduate education, foresees the likelihood of a shortage of qualified faculty of rather serious proportion.[3] On the other hand, Bernard Berelson feels that many observers have adopted an alarmist attitude and that no serious problem exists.[4] John Chase,[5] Ray Maul,[6] and the author [7] of the present study have tended to share Carmichael's view; while Allan Cartter has remained singularly optimistic concerning the continued availability of an adequate supply of highly qualified faculty members.[8]

Despite the plethora of opinions on the subject of demand and supply of professional staff for colleges and universities, no national-level, comprehensive study of the demand for staff has come to our attention.

Most studies have been of single institutions, while others have covered individual States [9] or have been limited to particular fields. In practically every case, the listing of fields has not been sufficiently detailed to provide meaningful data for college administrators. Information regarding the demand and supply of biological scientists, for example, may be useful for a general understanding of the field; but it is singularly useless to an employing officer seeking a biochemist or to a graduate dean having to determine which curricula should be expanded. This study has sought to avoid such a shortcoming.

Sampling Procedure

The universe of inquiry for this survey was 1,809 institutions of higher education comprising 7 types. The sample design provided for a one-stage stratified random sample. Stratified by control (public or private) and by type, the institutions were combined into three major groups:

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[2] L. Peterson *and* Jean M. Flanigan. *Financing the Public Schools, 1960–1970.* Washington: National Education Association, 1962. P. 41, citing a special tabulation of the U.S. Bureau of the Census.

[3] O. C. Carmichael. *Graduate Education.* New York: Harper, 1961.

[4] Bernard Berelson. *Graduate Education in the United States.* New York: McGraw-Hill, 1960.

[5] John L. Chase. "The Numbers Game in Graduate Education." *Journal of Higher Education,* March 1964. p. 138–43.

[6] Ray C. Maul. "A Look at the New College Teacher." *Educational Record,* Summer 1965. p. 259–66.

[7] James F. Rogers. "Staffing Our Colleges in the Present Decade." *Teachers College Record,* November 1965. p. 134–39.

[8] Allan M. Cartter. "A New Look at the Supply of College Teachers." *Educational Record,* Summer 1965. p. 267–77.

[9] See *A Master Plan for Higher Education in California, 1960–1975.* Sacramento: California State Department of Education, 1960. Also see *Higher Education in Connecticut—Report of a Survey.* Washington: U.S. Office of Education, 1964.

A. Universities and independent technological schools
B. Liberal arts colleges and teachers' colleges
C. 2-year institutions: junior colleges, technical institutes, and semiprofessional schools.

Based upon optimum allocation, a further stratification was made, by size of faculty and other professional staff as reported in an Office of Education survey, *Faculty and Other Professional Staff: Fall Term 1963–64* (OE–2019).

The main consideration in determining the sample size (360 institutions) was the availability of manpower and facilities to process the returns.

All public and private universities and independent technological schools (group A) were selected with certainty. The large institutions in groups B and C were also selected with certainty. The remaining ones in each group were then ranked according to faculty size, and after a random start the institutions in each stratum were selected in a systematic manner in accordance with the sampling ratios shown in the following tabulation:

Control, group, and faculty size [1]	*Number* *In universe* (N)	*Number* *In sample* (n)	*Sampling fraction* (n:N)	*Number of responses* (nr)	*Response rate percent* (nr/n)
Grand total	**1,809**	**360**	---	**332**	**92.2**
Public					
Total	*749*	*182*	---	*170*	*93.4*
Group					
A	113	113	1:1	106	93.8
B:					
440 and over	13	13	1:1	12	92.3
Under 440	247	24	1:10	23	95.8
C:					
420 and over	8	8	1:1	8	100.0
Under 420	368	24	1:15	21	87.5
Private					
Total	*1,060*	*178*	---	*162*	*91.0*
Group					
A	89	89	1:1	83	93.2
B:					
350 and over	11	11	1:1	6	54.5
Under 350	701	70	1:10	65	92.9
C:					
180 and over	2	2	1:1	2	100.0
Under 180	257	6	1:40	6	100.0

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[1] Size of faculty is based on the number reported by the institution for the item "Number of faculty and other professional staff" appearing on the questionnaire used in the Office of Education survey (publication OE–2019) mentioned in the discussion preceding this tabulation.

RESPONSE RATE

The overall response rate for this survey was 92.2 percent. The table shows the ratio for each of the strata. Since relevant data were lacking on which to base adjustments for nonresponse and since the response rate was relatively high, the nonresponding institutions were considered to have the same characteristics as the responding ones. The sampling fractions were then adjusted to provide for nonresponse. For example, 106 of the 113 public institutions in group A responded. The sampling fraction was then adjusted to 1:1.07 *vice* 1:1. In general, the sampling fractions were recomputed as the ratio of usable returns to the total number of institutions in the universe. It seems unlikely that this procedure for the treatment of nonresponse is a source of serious bias at the national level. However, in those strata where a lower proportion of institutions responded, there may be a higher nonresponse bias.

ESTIMATION PROCEDURE

The statistics developed in this survey are estimates based on inflating the sample data by an inflation factor that is the inverse of the probability with which an institution was selected to fall in the sample, and then adjusting this sampling fraction to account for nonresponse as described above.

DATA LIMITATIONS

Since the estimates are based on a sample, they may differ somewhat from the figures that would have been obtained if a complete count of all the institutions in the universe had been taken, using the same schedules, instructions, and procedures. As in any survey work, the results are subject to errors of response and of reporting, as well as of sampling variability. The major types of nonsampling errors in this report are probably classification errors made by the respondents, clerical coding and editing errors, and errors occurring during the machine-processing operations. Efforts were made at all points to keep errors at a minimum.

Although standard errors (the measure of sampling variability) have not been computed as of this writing, it is anticipated that the estimated totals appearing in the report for the most important characteristics will have an approximate 3-percent relative error at the one standard deviation level.

Some Observations and Conclusions

The institutions covered by this study enrolled 97.1 percent of all students in colleges and universities in the fall of 1963. For the fall of 1969, the institutions themselves have projected a total enrollment of 7,020,255. That projected figure covers both students who will be enrolled for credit at the baccalaureate and higher-degree levels and those who will be enrolled in programs not normally creditable toward such degrees. The enrollment in these latter programs consituted 5.7 percent of the total enrollment in the fall of 1963. Thus, if that percent continues to prevail in the fall of 1969, the remaining 94.3 percent of the 7,020,255 projection, or 6,630,000, will be students enrolled for degree credit.

Another fall 1969 projection for degree credit is that of the National Center for Educational Statistics in the U.S. Office of Education.[10] Its total is 6,966,000, as contrasted to the institutions' total of 6,630,000. The difference of 336,000 (4.8 percent) may indicate that the institutions tended to be conservative in their enrollment projections. On the other hand, it may be the Center which was too conservative in its degree-credit projections for fall 1969, since those it made for fall 1965 were 5,435,000,[11] whereas the actual figures turned out to be 5,570, 271.[12]

Besides the conservative nature of the enrollment projections forming the basis on which the institutions participating in the present study made their estimates for faculty needs, there is another and larger factor that cautions one against making literal use of the study's findings for national estimates. This factor is that the study makes no attempt to project new institutions which may be created during the 6 years covered by the study, despite the fact that during recent years new colleges and universities have come into being at an impressive rate.

During the 5 years 1961–65 inclusive, 8 universites and technological schools, 44 liberal arts colleges and teachers colleges, and 114 junior colleges and technical institutes were created. A total of 13 other new institutions, belonging to types not covered by the present study, also appeared during this time.[13] The continuing thrust to extend educational opportunity, especially through the junior-college level, lends support to the probability that the creation of new institutions is likely to continue at a brisk pace.

The number of faculty members employed annually by colleges and universities—a subject with which the present publication has not concerned itself—is covered, however, in a biennial study of the National

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[10] Kenneth A. Simon *and* Marie G. Fullam. *Projections of Educational Statistics to 1974–75.* Washington: U.S. Government Printing Office, 1965. p. 1.

[11] Ibid.

[12] U.S. Office of Education. *Opening Fall Enrollment in Higher Education, 1965.* Washington: U.S. Government Printing Office, 1966. p. 6.

[13] Leslie F. Robbins *and* Robert Bokelman. *College and University Facilities Survey, Part 5: Enrollment and Facilities of New Colleges and Universities Opening Between 1961 and 1965.* Washington: U.S. Government, Printing Office, 1965. p. 1.

Education Association dealing with 1,084 institutions.[14] That study differs from the present one also in two other important respects: it covers a considerably smaller number of institutions (1,084 as against 1,809); and it includes only full-time *teachers*, thus omitting administrative, research, and certain other professional staff, as well as all part-time.

The supply—or potential supply—of professional staff for colleges and universities, though not within the scope of the present study, is nevertheless highly relevant to it. In this connection, the reader's attention is called to the Office of Education's annual study of earned degrees.[15] Although persons receiving degrees each year, particularly graduate degrees, comprise only a partial source of the professional staff supply for colleges and universities, they constitute the most important single source. The significance which the academic community attaches to earned doctorates makes the number of them conferred annually in each field, as well as the trend of their number, extremely important.

The present study, it is believed, provides the most definitive, and the only presently available, data on part-time staff. Their proportion, particularly in some fields, is surprisingly large. Of the total professional staff, 24.3 percent are part-time. In administrative fields, part-time staff total 10.4 percent; in academic, 26.6 percent; and in technical and semiprofessional, 36.8 percent. The high type of the people available for part-time teaching in higher education may justify the institutions in following the practice. At the same time, the institutions should be aware of the heavy administrative load which the full-time staff must bear in order to maintain continuity of programs. Such is the case particularly when it comes to directing graduate study.

The magnitude of the task of preparing professional staff for colleges and universities is brought forcibly to attention by the findings of this study. In order to meet the challenge, institutions of higher education must give renewed emphasis to identifying and counseling students who are potential college faculty members, and to supporting graduate and professional schools. Only by so doing will institutions have the faculties, facilities, and research capabilities necessary to attract students of sufficient quality and in sufficient numbers to meet the needs of the various fields of study.

College and university demands for professional staff and implications for the Nation's demands for highly educated manpower may be reassessed in light of the information made available by the present study.

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[14] National Education Associaton. *Teacher Supply and Demand in Universities, Colleges, and Junior Colleges, 1963-64 and 1964-65*. Washington: The Association, 1965.

[15] Patricia Wright. *Earned Degrees Conferred, 1963-1964*. Washington: U.S. Government Printing Office, 1966.

Part Two: Analysis

National Totals

The 1,809 higher education institutions covered by the present study employed a total of 349,386 full-time and part-time professional staff in the fall of 1963. By field, they were distributed as follows:

Field	*Number*	*Percent*
Administrative		
Total	*55,610*	*15.9*
Full-time	49,815	18.8
Part-time	5,795	6.8
Academic		
Total	*284,698*	*81.5*
Full-time	209,060	79.0
Part-time	75,638	89.2
Technical and Semiprofessional		
Total	*9,078*	*2.6*
Full-time	5,738	2.2
Part-time	3,340	4.0

Of the total professional staff, 40.3 percent held the doctorate, 41.4 percent the master's and 18.3 percent the baccacaureate as the highest earned degree.[1]

The 1,809 institutions estimate that they will need 199,138 full-time professional staff, 51,438 as replacements and 147,700 as additions, from November 1963 through October 1969. This means that the estimated additional full-time staff comprises a 42.3 percent increase in the total staff during the 6-year period. For the same 6 years these institutions have projected a 61.1 percent increase in total enrollments. The disparity between these two rates of increase seems to indicate continued reliance on part-time staff for a considerable proportion of the workload, and it may indicate that the estimated needs for additional full-time staff are somewhat conservative.

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[1] For some purposes it might be more meaningful to consider the distribution of only the full-time staff.

Table 1.—Number and percent of *full- and part-time* professional staff in administrative, academic, and technical and semiprofessional fields, October 1963; and estimated further number and percent needed for *full-time* replacements and additions, November 1963–October 1969: Institutions of seven selected types (3 groups)[1], aggregate United States

Field	Staff, October 1963					Estimated further full-time staff needed November 1963–October 1969				
	Number			Percent		Number			Percent	
	Total	Full-time	Part-time	Full-time	Part-time	Total	Replacements	Additions	Replacements	Additions
1	2	3	4	5	6	7	8	9	10	11
Total	**349,386**	**264,613**	**84,773**	**100.0**	**100.0**	**199,138**	**51,438**	**147,700**	**100.0**	**100.0**
Administrative	55,610	49,815	5,795	18.8	6.8	33,291	9,502	23,789	18.5	16.1
Academic [3]	284,698	209,060	75,638	79.0	89.2	158,808	40,985	117,823	79.9	79.8
Technical and semiprofessional [4]	9,078	5,738	3,340	2.2	3.9	7,039	951	6,088	1.8	4.1

[1] *Group I:* Universities and technological schools; *Group II:* Liberal arts colleges and teachers colleges; *Group III:* 2-year institutions—junior colleges, technical schools, and semiprofessional schools.

[2] Positions *normally* requiring a baccalaureate or higher degree.

[3] Instructional and research positions in fields whose courses are *normally creditable* toward a baccalaureate or higher degree.

[4] Instructional and research positions in fields whose courses are *not normally creditable* toward a baccalaureate or higher degree.

Table 2.—Number and percent of *full- and part-time* professional staff, by institutions of seven selected types (three groups),[1]

Field	Full-time						
	Number, by degree				Percent, by degree		
	Total	Bachelor's	Master's	Doctor's	Bachelor's	Master's	Doctor's
1	2	3	4	5	6	7	8
Total, all fields	**264,613**	**43,869**	**110,855**	**109,889**	**16.6**	**41.9**	**41.5**
Administrative							
Total	*49,815*	*23,261*	*19,333*	*7,221*	*46.7*	*38.8*	*14.5*
General	12,409	5,803	4,414	2,192	46.8	35.6	17.7
Academic affairs	13,770	3,645	7,732	2,393	26.5	56.2	17.4
Student services	12,560	5,087	5,018	2,455	40.5	40.0	19.5
Business affairs	11,076	8,726	2,169	181	78.8	19.6	1.6
Academic							
Total	*209,060*	*18,174*	*88,651*	*102,235*	*8.7*	*42.4*	*48.9*
Agriculture and forestry	7,631	1,126	2,645	3,860	14.8	34.7	50.6
Biological sciences	16,885	651	3,715	12,519	3.9	22.0	74.1
Business and commerce	10,503	1,481	5,733	3,289	14.1	54.6	31.3
Education	28,164	3,076	15,058	10,030	10.9	53.5	35.6
Engineering (including architecture)	15,208	2,958	6,511	5,739	19.5	42.8	37.7
English and journalism	17,518	867	9,720	6,931	4.9	55.6	39.6
Fine and applied arts	16,713	1,646	11,044	4,023	9.8	66.1	24.1
Foreign languages	11,304	695	4,831	5,778	6.1	42.7	51.1
Geography	1,508	15	738	755	1.0	48.9	50.1
Health professions	16,982	1,433	3,639	11,910	8.4	21.4	70.1
Home economics	2,836	285	2,018	533	10.0	71.2	18.8
Law	1,485	512	502	471	34.5	33.8	31.7
Library science	595	35	434	126	5.9	72.9	21.2
Mathematical subjects	10,013	748	5,104	4,161	7.5	51.0	41.6
Philosophy	3,239	93	1,026	2,120	2.9	31.7	65.5
Physical sciences	7,840	1,337	4,829	11,674	7.5	27.1	65.4
Psychology	5,476	165	1,287	4,024	3.0	23.5	73.5
Religion	2,911	213	1,237	1,461	7.3	42.5	50.2
Basic social sciences	20,082	524	7,337	12,221	2.6	36.5	60.9
Applied social sciences	1,443	101	827	515	7.0	57.3	35.7
All other	724	213	416	95	29.4	57.5	13.1
Technical and Semiprofessional							
Total	*5,738*	*2,434*	*2,871*	*433*	*42.4*	*50.0*	*7.5*
Engineering-related	2,037	1,132	808	97	55.6	39.7	4.8
Nonengineering-related	3,701	1,302	2,063	336	35.2	55.7	9.1

[1] *Group I:* Universities and technological schools; *Group II:* Liberal arts colleges and teachers colleges;

large field **and by degree: total, and part-time as percent of total, in by large field: Aggregated United States, October 1963**

Part-time							Total	Part-time as percent of total
Number, by degree				Percent, by degree				
Total	Bachelor's	Master's	Doctor's	Bachelor's	Master's	Doctor's		
9	10	11	12	13	14	15	16	17
84,773	19,977	33,834	30,962	23.6	39.9	36.5	349,386	24.3
5,795	*2,145*	*2,102*	*1,548*	*37.0*	*36.3*	*26.7*	*55,610*	*10.4*
1,094	451	550	93	41.2	50.3	8.5	13,503	8.1
916	400	407	109	43.7	44.4	11.9	14,686	6.2
3,043	697	1,035	1,311	22.9	34.0	34.1	15,603	19.5
742	597	110	35	80.5	14.8	4.7	11,818	6.3
75,638	*15,760*	*30,603*	*29,275*	*20.6*	*40.5*	*38.7*	*284,698*	*26.6*
706	269	274	163	38.1	38.8	23.1	8,337	8.5
3,350	666	873	1,811	19.9	26.0	54.1	20,235	16.6
6,415	2,191	3,661	563	34.1	57.1	8.8	16,918	37.9
7,584	1,646	4,336	1,602	21.7	57.2	21.1	35,748	21.1
3,956	1,355	1,978	623	34.3	50.0	15.7	19,164	20.6
4,762	1,134	3,081	547	23.8	64.7	11.5	22,280	21.4
5,782	2,317	3,072	393	40.1	53.1	6.8	22,495	25.7
3,334	930	1,848	556	27.9	55.4	16.7	14,638	22.8
342	66	171	105	19.3	50.0	30.7	1,850	18.5
19,488	1,176	638	17,674	6.0	3.3	90.7	36,470	53.4
550	225	284	41	40.9	51.6	7.5	3,386	16.2
786	542	129	115	69.0	16.4	14.6	2,271	34.6
498	145	339	14	29.1	68.1	2.8	1,093	45.6
3,841	899	2,463	479	23.4	64.1	12.5	13,854	27.7
848	67	402	379	7.9	47.4	44.7	4,987	20.7
3,815	1,085	1,732	998	28.4	45.4	26.2	21,655	17.6
2,423	198	1,055	1,170	8.2	43.5	48.3	7,899	30.7
1,120	122	600	398	10.9	53.6	35.5	4,031	27.8
5,275	533	3,277	1,465	10.1	62.1	27.8	25,357	20.8
556	94	318	144	16.9	57.2	25.9	1,999	27.8
207	100	72	35	48.3	34.8	16.9	931	22.2
3,340	*2,072*	*1,129*	*139*	*62.0*	*33.8*	*4.2*	*9,078*	*36.8*
2,137	1,295	665	77	65.3	31.1	3.6	4,174	51.2
1,203	677	464	62	56.3	38.6	5.1	4,904	24.4

Group III: 2-year institutions—junior colleges, technical schools, and semiprofessional schools.

Table 3.—Number and percent of *full-time* professional staff, October 1963; and estimated further number and percent needed for *full-time* replacements and additions, November 1963—October 1969, in institutions of seven selected types (three groups),[1] by *large field:* Aggregate United States

Field	Staff October 1963		Estimated further staff needs November 1963–October 1969					
			Number			Percent		
	Number	Percent	Total	Replacements	Additions	Total	Replacements	Additions
1	2	3	4	5	6	7	8	9
Total, all fields	**264,613**	**100.0**	**199,138**	**51,438**	**147,700**	**100.0**	**100.0**	**100.0**
Administrative								
Total	*49,815*	*18.8*	*33,291*	*9,502*	*23,789*	*16.7*	*18.5*	*16.1*
General	12,209	4.6	7,718	2,331	5,387	3.9	4.5	3.6
Academic affairs	13,770	5.2	8,897	2,476	6,421	4.5	4.8	4.3
Student services	12,560	4.7	9,531	2,652	6,879	4.8	5.2	4.7
Business affairs	11,076	4.2	7,145	2,043	5,102	3.6	4.0	3.5
Academic								
Total	*209,060*	*79.0*	*158,808*	*40,985*	*117,823*	*79.7*	*79.7*	*79.8*
Agriculture and forestry	7,631	2.9	3,036	1,371	1,665	1.5	2.7	1.1
Biological sciences	16,885	6.4	12,026	2,943	9,083	6.0	5.7	6.1
Business and commerce	10,503	4.0	8,986	2,194	6,792	4.5	4.3	4.6
Education	28,164	10.6	19,467	5,009	14,458	9.8	9.7	9.8
Engineering (including architecture)	15,208	5.7	9,822	3,330	6,492	4.9	6.5	4.4
English and journalism	17,518	6.6	15,281	3,616	11,665	7.7	7.0	7.9
Fine and applied arts	16,713	6.3	12,615	2,796	9,819	6.3	5.4	6.6
Foreign languages	11,304	4.3	10,007	2,532	7,475	5.0	4.9	5.1
Geography	1,508	.6	1,472	226	1,246	.7	.4	.8
Health professions	16,982	6.4	10,194	3,239	6,955	5.1	6.3	4.7
Home economics	2,836	1.1	1,958	766	1,192	1.0	1.5	.8
Law	1,485	.6	863	278	585	.4	.5	.4
Library science	595	.2	695	151	544	.3	.3	.4
Mathematical subjects	10,013	3.8	9,083	2,096	6,977	4.6	4.1	4.7
Philosophy	3,239	1.2	2,714	714	2,000	1.4	1.4	1.4
Physical sciences	17,840	6.7	13,797	3,395	10,402	6.9	6.6	7.0
Psychology	5,476	2.1	5,210	1,064	4,146	2.6	2.1	2.8
Religion	2,911	1.1	1,900	734	1,166	1.0	1.4	.8
Basic social sciences	20,082	7.6	17,816	4,072	13,744	8.9	7.9	9.3
Applied social sciences	1,443	.5	1,246	376	870	.6	.7	.6
All other	724	.3	630	83	547	.3	.2	.4
Technical and Semiprofessional								
Total	*5,738*	*2.2*	*7,039*	*951*	*6,088*	*3.6*	*1.8*	*4.1*
Engineering-related	2,037	.8	3,124	391	2,733	1.6	.8	1.9
Nonengineering-related	3,701	1.4	3,915	560	3,355	2.0	1.1	2.3

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[1] *Group I:* Universities and technological schools; *Group II:* Liberal arts colleges and teachers colleges; *Group III:* 2-year insititutions—junior colleges, technical schools, and semiprofessional schools.

Table 4.—Number and percent of *full- and part-time* professional staff, October 1963, by ***detailed field*** and by degree; and estimated further number needed for *full-time* replacements and additions, November 1963–October 1969, by detailed field: Institutions of seven selected types (three groups)[1], aggregated United States

[*Indicates less than one-tenth of 1 percent]

Field	Staff, October 1963										Estimated further full-time staff needed November 1963–October 1969		
	Full-time					Part-time							
	Total		Bach-elor's	Mas-ter's	Doc-tor's	Total		Bach-elor's	Mas-ter's	Doc-tor's	Total	Re-place-ments	Addi-tions
	Num-ber	Per-cent				Num-ber	Per-cent						
1	2	3	4	5	6	7	8	9	10	11	12	13	14
SUMMARY													
Grand total, all fields	264,613	100.0	43,869	110,855	109,889	84,773	100.0	19,977	33,834	30,962	199,138	51,438	147,700
Total, administrative	49,815	18.8	23,261	19,333	7,221	5,795	6.8	2,145	2,102	1,548	33,291	9,502	23,789
Total, academic	209,060	79.0	18,174	88,651	102,235	75,638	89.2	15,760	30,603	29,275	158,808	40,985	117,823
Total, technical and semiprofessional	5,738	2.2	2,434	2,871	433	3,340	3.9	2.072	1,129	139	7,039	951	6,088

See footnotes at end of table.

Table 4.—Number and percent of *full- and part-time* professional staff, October 1963, by *detailed field* and by degree; and estimated further number needed for *full-time* replacements and additions, November 1963–October 1969, by detailed field: Institutions of seven selected types (three groups)[1], aggregated United States—Continued

[*Indicates less than one-tenth of 1 percent]

Field	Staff, October 1963										Estimated further full-time staff needed November 1963–October 1969		
	Full-time					Part-time							
	Total		Bachelor's	Master's	Doctor's	Total		Bachelor's	Master's	Doctor's	Total	Replacements	Additions
	Number	Percent				Number	Percent						
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	ADMINISTRATIVE FIELDS[2]												
Total	**49,815**	**18.8**	**23,216**	**19,333**	**7,221**	**5,795**	**6.8**	**2,145**	**2,102**	**1,548**	**33,291**	**9,502**	**23,789**
General													
Total	*12,409*	*4.7*	*5,803*	*4,414*	*2,192*	*1,094*	*1.3*	*451*	*550*	*93*	*7,718*	*2,331*	*5,387*
Chief administrative officer	1,763	.7	146	594	1,023	170	.2	44	114	12	555	444	111
Officers for public relations, planning and development, alumni, etc	3,669	1.4	2,104	1,240	325	285	.3	188	66	31	2,410	639	1,771
Admissions and recruitment officers	2,225	.8	1,083	941	201	316	.4	133	166	17	2,075	530	1,545
Registrars and assistant registrars[3]	2,275	.9	1,143	919	213	131	.2	24	103	4	1,470	375	1,095
Other	2,477	.9	1,327	720	430	192	.2	62	101	29	1,208	343	865
Academic Affairs													
Total	*13,770*	*5.2*	*3,645*	*7,732*	*2,393*	*916*	*1.1*	*400*	*407*	*109*	*8,897*	*2,476*	*6,421*
Chief academic officer, academic vice-president, dean of faculties, academic dean, dean of instruction, etc[4]	1,946	.7	106	695	1,145	61	.1	3	34	24	1.114	369	775

Graduate dean and assistant graduate deans	640	.3	12	136	492	106	.1	28	37	41	517	142	375
Librarians [5]	9,695	3.7	3,038	6,300	357	681	.8	342	320	19	6,211	1,745	4,466
Other	1,489	.6	489	601	399	68	(*)	27	16	25	1,025	220	805
Student Services													
Total	*12,560*	*4.8*	*5,087*	*5,018*	*2,455*	*3,043*	*3.6*	*697*	*1,035*	*1,311*	*9,531*	*2,652*	*6,879*
Chief student services officer [6]	1,318	.5	85	791	442	65	(*)	1	62	2	608	249	359
Assistant student services officers [7]	2,935	1.1	695	1,919	321	250	.3	90	142	18	1,877	628	1,249
Counseling, advisory, and testing personnel	2,882	1.1	633	1,453	796	814	1.0	168	473	173	3,459	572	2,887
Health services personnel [8]	4,037	1.5	2,921	345	771	1,602	1.9	345	153	1,104	2,626	969	1,657
Other	1,388	.5	753	510	125	312	.4	93	205	14	961	234	727
Business Affairs													
Total	*11,076*	*4.2*	*8,726*	*2,169*	*181*	*742*	*.9*	*597*	*110*	*35*	*7,145*	*2,043*	*5,102*
Chief business officer	1,568	.6	833	673	62	149	.2	137	12	0	628	306	322
Accounting and purchasing officers	2,421	.9	1,945	448	28	51	(*)	24	27	0	1,442	305	1,137
Physical plant management staff (including engineers)	1,793	.7	1,584	202	7	58	(*)	53	4	1	1,375	278	1,097
Auxiliary services management staff [9]	3,740	1.4	3,148	572	20	430	.5	351	61	18	2,818	841	1,977
Other	1,554	.6	1,216	274	64	54	(*)	32	6	16	882	313	569
	ACADEMIC FIELDS [10]												
Total	**209,060**	**79.0**	**18,174**	**88,651**	**102,235**	**75,638**	**89.2**	**15,760**	**30,603**	**29,275**	**158,808**	**40,985**	**117,823**
Agriculture ***(Includes agricultural economics and agricultural engineering)***[11]													
Total	*7,097*	*2.7*	*1,091*	*2,422*	*3,584*	*668*	*.8*	*260*	*252*	*156*	*2,698*	*1,270*	*1,428*
Architecture ***(Includes architectural engineering)***													
Total	*1,061*	*.4*	*407*	*605*	*49*	*376*	*.5*	*211*	*143*	*22*	*662*	*235*	*427*

See footnotes at end of table.

Table 4.—Number and percent of *full- and part-time* professional staff, October 1963, by *detailed field* and by degree; and estimated further number needed for *full-time* replacements and additions, November 1963–October 1969, by detailed field: Institutions of seven selected types (three groups)[1], aggregated United States—Continued

[*Indicates less than one-tenth of 1 percent]

Field	Staff, October 1963										Estimated further full-time staff needed November 1963–October 1969		
	Full-time					Part-time							
	Total		Bachelor's	Master's	Doctor's	Total		Bachelor's	Master's	Doctor's	Total	Replacements	Additions
	Number	Percent				Number	Percent						
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	ACADEMIC FIELDS [11]—Continued												
Biological Sciences ***(Includes all "basic sciences" of the health professions)***													
Total	*16,885*	*6.4*	*651*	*3,715*	*12,519*	*3,350*	*4.0*	*666*	*873*	*1,811*	*12,026*	*2,943*	*9,083*
General biology	3,659	1.4	158	1,703	1,798	1,073	1.3	294	505	274	3,191	691	2,500
General botany	1,501	.6	25	348	1,128	190	.2	70	43	77	1,012	291	721
General zoology	2,063	.8	71	554	1,438	252	.3	99	73	80	1,433	338	1,095
Anatomy and histology	1,255	.5	64	242	949	222	.3	25	30	167	860	229	631
Bactriology, microbiology, mycology, parasitology, and virology	1,712	.7	62	210	1,440	259	.3	43	81	135	1,261	264	997
Biochemistry	1,335	.5	60	67	1,228	208	.3	24	28	153	981	239	742
Pathology [12]	1,003	.4	55	47	901	563	.7	23	21	519	514	151	363
Pharmachology	579	.2	23	36	520	113	.1	7	8	98	309	112	197
Physiology [13]	1,081	.4	26	121	934	247	.3	51	34	162	798	211	587

Biophysics, cytology, ecology, embryology, entomology, genetics, plant pathology, plant physiology, and other biological sciences [14]	2,677	1.0	107	387	2,183	223	.3	30	50	143	1,667	417	1,250
Business and Commerce													
Total	*10,503*	*4.0*	*1,481*	*5,733*	*3,289*	*6,415*	*7.6*	*2,191*	*3,661*	*563*	*8,986*	*2,194*	*6,792*
Accounting, auditing, and taxation	2,655	1.0	372	1,697	586	1,838	2.2	538	1,224	76	2,594	662	1,932
Finance, investments, and law [15]	1,094	.4	89	503	502	993	1.2	386	425	182	1,165	284	881
Secretarial studies	2,106	.8	555	1,340	211	590	.7	225	342	23	1,319	318	1,001
Marketing, retailing, wholesaling, and advertising	1,349	.5	149	682	518	624	.7	221	353	50	1,186	245	941
Personnel management and industrial relations	1,038	.4	89	444	505	498	.6	134	317	47	1,017	210	807
Business and commerce, general, and not otherwise classified	2,261	.9	227	1,067	967	1,872	2.2	687	1,000	185	1,705	475	1,230
Education													
Total	*28,164*	*10.6*	*3,076*	*15,058*	*10,030*	*7,584*	*9.0*	*1,646*	*4,336*	*1,602*	*19,467*	*5,009*	*14,458*
Health education, physical education, and recreation (including athletic coaches)	10,119	3.8	2,078	6,644	1,397	1,611	1.9	864	601	146	6,209	1,608	4,601
Educational psychology (including special education, educational counseling, and guidance)	2,657	1.0	36	735	1,886	1,102	1.3	42	620	440	2,297	571	1,726
Industrial arts education and trade and industrial education [16]	1,349	.5	121	867	361	294	.4	177	101	16	1,005	237	768
Elementary education, nursery and kindergarten, and early childhoold education (including art education and music education)	4,998	1.9	324	3,160	1,514	1,506	1.8	129	1,191	186	3,296	1,035	2,261
Secondary education (including junior high school) [17]	5,142	1.9	204	2,237	2,701	1,349	1.6	158	900	291	3,522	883	2,639
Educational administration and supervision and educational finance (both elementary and secondary)	1,160	.4	46	225	889	642	.8	36	295	311	831	246	585
Higher education (including junior college)	302	.1	9	42	251	70	.1	1	27	42	214	43	171
Other [18]	2,437	.9	258	1,148	1,031	1,010	1.2	239	601	170	2,093	386	1,707

See footnotes at end of table.

Table 4.—Number and percent of *full- and part-time* professional staff, October 1963, by *detailed field* and by degree; and estimated further number needed for *full-time* replacements and additions, November 1963–October 1969, by detailed field: Institutions of seven selected types (three groups)[1], aggregated United States—Continued

[*Indicates less than one-tenth of 1 percent]

Field	Staff, October 1963										Estimated further full-time staff needed November 1963–October 1969		
	Full-time					Part-time							
	Total		Bachelor's	Master's	Doctor's	Total		Bachelor's	Master's	Doctor's	Total	Replacements	Additions
	Number	Percent				Number	Percent						
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	ACADEMIC FIELDS[10]—Continued												
Engineering													
Total	*14,147*	*5.4*	*2,551*	*5,906*	*5,690*	*3,580*	*4.2*	*1,144*	*1,835*	*601*	*9,160*	*3,095*	*6,065*
Aeronautical (including aerospace)	820	.3	125	250	445	143	.2	41	51	51	534	165	369
Chemical	1,008	.4	64	219	725	145	.2	26	52	67	722	220	502
Civil	2,163	.8	250	1,161	752	481	.6	162	277	42	1,203	418	785
Electrical	3,900	1.5	821	1,591	1,488	780	.9	247	372	161	2,564	942	1,622
Mechanical	2,664	1.0	490	1,340	870	773	.9	264	428	81	1,578	542	1,036
Other [19]	3,592	1.4	801	1,381	1,410	1,258	1.5	404	655	199	2,559	808	1,751
English and Journalism													
Total	*17,518*	*6.6*	*867*	*9,720*	*6,931*	*4,762*	*5.6*	*1,134*	*3,081*	*547*	*15,281*	*3,616*	*11,665*
English and literature (including comparative literature)	16,522	6.2	741	9,074	6,707	4,245	5.0	834	2,880	531	14,385	3,417	10,968
Journalism	996	.4	126	646	224	517	.6	300	201	16	896	199	697

Fine and Applied Arts													
Total	*16,713*	*6.3*	*1,646*	*11,044*	*4,023*	*5,782*	*6.8*	*2,317*	*3,072*	*393*	*12,615*	*2,796*	*9,819*
Art, general	3,986	1.5	563	2,834	589	1,555	1.8	767	740	48	3,260	700	2,560
Music (including sacred music)	6,739	2.6	601	4,739	1,399	2,606	3.1	1,127	1,326	153	4,301	1,078	3,223
Speech and dramatic arts (including speech correction)	4,929	1.9	300	2,990	1,639	1,330	1.6	270	904	156	4,074	803	3,271
Other [20]	1,059	.4	182	481	396	291	.3	153	102	36	980	215	765
Foreign Languages, Linguistics, and Literature													
Total	*11,304*	*4.3*	*695*	*4,831*	*5,778*	*3,334*	*3.9*	*930*	*1,848*	*556*	*10,007*	*2,532*	*7,475*
Latin, Greek, and Hebrew	1,319	.5	68	419	832	376	.4	74	205	97	707	297	410
French (including philology and literature)	3,636	1.4	233	1,808	1,595	941	1.1	232	600	109	3,097	856	2,241
Spanish (including philology and literature)	2,853	1.1	145	1,379	1,329	867	1.0	244	502	121	2,617	608	2,009
Germanic languages (including philology and literature)	2,223	.8	105	852	1,266	674	.8	236	326	112	2,072	499	1,573
Russian and other Slavic languages (including philology and literature)	614	.2	94	208	312	307	.4	106	140	61	847	157	690
Other [21]	659	.3	50	165	444	169	.2	38	75	56	667	115	552
Forestry													
Total	*534*	*.2*	*35*	*223*	*276*	*38*	(*)	*9*	*22*	*7*	*338*	*101*	*237*
Geography													
Total	*1,508*	*.6*	*15*	*738*	*755*	*342*	*.4*	*66*	*171*	*105*	*1,472*	*226*	*1,246*
Health Professions [22]													
Total	*16,982*	*6.4*	*1,433*	*3,639*	*11,910*	*19,488*	*23.0*	*1,176*	*638*	*17,674*	*10,194*	*3,239*	*6,955*
Medical and dental technologies and medical therapies [23]	319	.1	90	160	69	259	.3	144	33	82	297	64	233
Dentistry, D.D.S. and D.M.D. (including graduate specialities)	1,469	.6	77	48	1,344	2,403	2.8	95	35	2,273	988	338	650
Medical specialities (including dermatology; internal medicine including allergy, cardiovascular disease, gastroenterology and pulmonary diseases; and pediatrics)	3,500	1.3	135	140	3,225	5,948	7.0	311	63	5,574	1,610	538	1,072

See footnotes at end of table.

Table 4.—Number and percent of *full- and part-time* professional staff, October 1963, by *detailed field* and by degree; and estimated further number needed for *full-time* replacements and additions, November 1963–October 1969, by detailed field: Institutions of seven selected types (three groups)[1], aggregated United States—Continued

[*Indicates less than one-tenth of 1 percent]

Field	Staff, October 1963										Estimated further full-time staff needed November 1963–October 1969		
	Full-time					Part-time							
	Total		Bachelor's	Master's	Doctor's	Total		Bachelor's	Master's	Doctor's	Total	Replacements	Additions
	Number	Percent				Number	Percent						
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	ACADEMIC FIELDS [18]—Continued												
Health Professions [22]—Continued													
Surgical specialities (including anesthesiology, colen and rectal surgery, general surgery, neurological surgery, obstetrics and gynecology, ophthalmology, orthopedic surgery, otolaryngology, plastic surgery, thoracic surgery, and urology)	2,664	1.0	105	111	2,448	5,528	6.5	168	36	5,324	1,348	479	869
Psychiatry and neurology	1,704	.6	67	149	1,488	2,013	2.4	49	75	1,889	742	281	461
Other specialities (including administrative medicine, physical medicine and rehabilitation, preventive medicine, and radiology)	1,909	.7	211	171	1,527	2,065	2.4	130	47	1,888	1,010	338	672
Nursing [24]	3,034	1.2	514	2,345	175	285	.3	90	154	41	2,662	677	1,985
Pharmacy	724	.3	89	142	493	172	.2	54	69	49	456	160	296

Public health	693	.3	34	163	496	423	.5	45	58	320	396	110	283
Veterinary medicine, D.V.M. (including clinical veterinary medical sciences)	798	.3	88	152	558	168	.2	42	26	100	563	194	369
Podiatry, optometry, osteopathy, hospital administration, and other health professions)	168	.1	23	58	87	224	.3	48	42	134	122	60	62
Home Economics[15]													
Total	*2,836*	*1.1*	*285*	*2,018*	*533*	*550*	*.7*	*225*	*284*	*41*	*1,958*	*766*	*1,192*
Law													
Total	*1,485*	*.6*	*512*	*502*	*471*	*786*	*.9*	*542*	*129*	*115*	*863*	*278*	*585*
Library Science													
Total	*695*	*.2*	*35*	*434*	*126*	*498*	*.6*	*145*	*339*	*14*	*695*	*151*	*544*
Mathematical Subjects													
Total	*10,013*	*3.8*	*748*	*5,104*	*4,161*	*3,841*	*4.5*	*899*	*2,463*	*479*	*9,073*	*2,096*	*6,977*
Mathematics	9,590	3.6	723	5,021	3,846	3,668	4.3	878	2,374	416	8,678	2,017	6,661
Statistics (including actuarial science)	423	.2	25	83	315	173	.2	21	89	63	395	79	316
Philosophy (*Includes scholastic philosophy*)													
Total	*3,239*	*1.2*	*93*	*1,026*	*2,120*	*848*	*1.0*	*67*	*402*	*379*	*2,714*	*714*	*2,000*
Physical Sciences													
Total	*17,840*	*6.7*	*1,337*	*4,829*	*11,674*	*3,815*	*4.5*	*1,085*	*1,732*	*998*	*13,797*	*3,395*	*10,402*
Chemistry[16]	7,934	3.0	447	1,965	5,522	1,851	2.2	677	674	500	5,816	1,504	4,312
Physics[17]	6,422	2.4	557	1,980	3,885	1,245	1.5	294	630	321	4,977	1,302	3,675
Geology	1,328	.5	22	256	1,050	238	.3	48	132	58	1,031	209	822
Geophysics, oceanography, and other earth sciences	668	.3	66	159	443	67	.1	10	18	39	511	105	406
Astronomy, metallurgy, meteorology, and other physical sciences	1,488	.6	245	469	774	414	.5	56	278	80	1,462	275	1,187

See footnotes at end of table.

Table 4.—Number and percent of *full- and part-time* professional staff, October 1963, by ***detailed field*** and by degree; and estimated further number needed for *full-time* replacements and additions, November 1963–October 1969, by detailed field: Institutions of seven selected types (three groups)[1], aggregated United States—Continued

[*Indicates less than one-tenth of 1 percent]

Field	Staff, October 1963										Estimated further full-time staff needed November 1963–October 1969		
	Full-time					Part-time							
	Total		Bach-elor's	Mas-ter's	Doc-tor's	Total		Bach-elor's	Mas-ter's	Doc-tor's	Total	Re-place-ments	Addi-tions
	Num-ber	Per-cent				Num-ber	Per-cent						
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	ACADEMIC FIELDS[10]—Continued												
Psychology													
Total	*5,476*	*2.1*	*165*	*1,287*	*4,024*	*2,423*	*2.9*	*198*	*1,055*	*1,170*	*5,210*	*1,064*	*4,146*
Clinical; psychological counseling (including guidance and rehabilitation)[28]	1,055	.4	9	115	931	529	.6	53	105	371	851	198	653
Social (including personality)	711	.3	10	179	522	302	.4	28	127	147	569	110	459
Experimental (including physiological and comparative)	1,259	.5	12	124	1,123	257	.3	41	57	159	963	237	726
All other	2,451	.9	134	869	1,448	1,335	1.6	76	766	493	2,827	519	2,308
Religion **(*Includes religious education, Bible, and theology*)**													
Total	*2,911*	*1.1*	*213*	*1,237*	*1,461*	*1,120*	*1.3*	*122*	*600*	*398*	*1,900*	*734*	*1,166*

Social Sciences													
Total	*21,525*	*8.1*	*625*	*8,164*	*12,736*	*5,831*	*6.9*	*627*	*3,595*	*1,609*	*19,062*	*4,448*	*14,614*
Basic:													
Anthropology	771	.3	29	150	592	148	.2	24	54	70	842	111	731
Economics [19]	3,860	1.5	176	1,380	2,304	1,066	1.3	140	586	340	3,139	843	2,296
HISTORY—													
European	3,057	1.2	53	1,182	1,822	782	.9	36	587	159	2,533	582	1,951
United States	3,256	1.2	23	1,313	1,920	681	.8	56	492	133	2,512	566	1,946
All other	1,666	.6	10	671	985	365	.4	29	252	84	1,548	380	1,168
International relations, political science, and government	3,426	1.3	75	1,086	2,265	890	1.1	123	461	306	3,054	704	2,350
Sociology	3,307	1.3	136	1,202	1,969	1,087	1.3	99	690	298	3,326	763	2,563
American civilization, area and regional studies, and all other basic social sciences [20]	739	.3	22	353	364	256	.3	26	155	75	862	123	739
Applied:													
Public administration	282	.1	34	92	156	153	.2	61	61	31	219	58	161
Social work (including social administration)	1,014	.4	46	674	294	374	.4	25	248	101	619	174	445
Foreign service programs and all other applied social sciences [21]	147	.1	21	61	65	29	(*)	8	9	12	408	144	264
Trade and Industrial Training [22]													
Total	*523*	*.2*	*180*	*301*	*43*	*94*	*.1*	*68*	*25*	*1*	*352*	*56*	*296*
Broad General Curricula													
Total	*133*	*.1*	*0*	*115*	*18*	*48*	*.1*	*0*	*26*	*22*	*150*	*9*	*141*
General Programs in:													
Humanities	26	(*)	0	20	6	3	(*)	0	3	0	37	2	35
Biological sciences	18	(*)	0	14	4	8	(*)	0	6	2	25	1	24
Physical sciences	11	(*)	0	7	4	28	(*)	0	9	19	28	1	27
Social sciences	78	(*)	0	74	4	9	(*)	0	8	1	60	5	55
All Other Fields													
Total	*68*	(*)	*24*	*10*	*34*	*65*	*.1*	*32*	*21*	*12*	*128*	*18*	*110*

See footnotes at end of table.

Table 4.—Number and percent of *full- and part-time* professional staff, October 1963, by *detailed field* and by degree; and estimated further number needed for *full-time* replacements and additions, November 1963–October 1969, by detailed field: Institutions of seven selected types (three groups)[1], aggregated United States—Continued

[*Indicates less than one-tenth of 1 percent]

Field	Staff, October 1963										Estimated further full-time staff needed November 1963–October 1969		
	Full-time					Part-time							
	Total		Bachelor's	Master's	Doctor's	Total		Bachelor's	Master's	Doctor's	Total	Replacements	Additions
	Number	Percent				Number	Percent						
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	TECHNICAL AND SEMIPROFESSIONAL FIELDS [11]												
Total	**5,738**	**2.2**	**2,434**	**2,871**	**433**	**3,340**	**3.9**	**2,072**	**1,129**	**139**	**7,039**	**951**	**6,088**
Engineering-related Technologies													
Total	*2,037*	*.8*	*1,132*	*808*	*97*	*2,137*	*2.5*	*1,395*	*665*	77	*3,124*	*391*	*2,733*
Aeronautical (aircraft design and maintenance, airport operation, etc.)	83	(*)	52	29	2	36	(*)	19	15	2	84	22	62
Chemical (chemical processes, leather, paper, plastics, rubber, etc.)	39	(*)	10	14	15	51	.1	23	21	7	191	8	188
Civil (architechtural, drafting and design, building and construction, structural, etc.)	206	.1	114	87	5	173	.2	134	37	2	520	39	481

Electrical (electrical construction and wiring, electronics, instrumentation, radio and television, etc.)	678	.3	436	222	20	438	.5	296	141	1	785	151	634
General engineering (including engineering aide programs)	68	(*)	33	35	0	107	.1	40	58	9	288	52	236
Industrial (production management, quality control, technical sales, etc.)	145	.1	93	46	6	93	.1	61	31	1	190	6	184
Mechanical (air conditioning, automotive, diesel, heating, horology, mechanical drafting and machine design, refrigeration, tool and die design, etc.)	562	.2	333	226	3	999	1.2	711	256	2	683	80	603
Other (metallurgical, naval and marine, nuclear and atomic, petroleum, welding, etc.)	256	.1	61	149	46	240	.3	111	76	53	378	33	345
Nonengineering-related Fields													
Total	*3,701*	*1.4*	*1,302*	*2,063*	*336*	*1,203*	*1.4*	*677*	*464*	*62*	*3,915*	*560*	*3,355*
Agriculture and forestry (animal science, horticulture and floriculture, industrial agriculture, etc.)	808	.3	226	442	140	1	(*)	1	0	0	578	116	462
Applied, fine, and graphic arts (music, commercial art and advertising, fashion design, interior decorating, photography, printing, radio and television broadcasting, etc.)	342	.1	130	206	6	216	.3	121	92	3	431	49	382
Automatic data processing	133	.1	40	64	29	63	.1	24	39	0	429	18	411
Business and commerce (accounting, management, secretarial, technical office assistants, real estate, insurance, purchasing, selling, industrial or labor relations, etc.)	730	.3	332	394	4	413	.5	228	183	2	890	130	760
Health service (dental and medical technicians, dental and medical assistants, practical nursing, x-ray technicians, etc.)	450	.2	220	163	67	98	.1	32	18	48	818	113	705
Home economics	333	.1	82	233	18	7	(*)	3	4	0	221	93	128
Other	905	.3	272	561	72	405	.5	268	128	9	548	41	507

See footnotes on next page.

FOOTNOTES TO TABLE 4

[1] *Group I:* Universities and technological schools; *Group II:* Liberal arts colleges and teachers colleges; *Group III:* 2-year institutions (junior colleges, technical schools, and semiprofessional schools.

[2] Institutions were instructed to report *only* professional staff in positions *normally requiring* a baccalaureate or higher degree.

[3] Includes registrars for professional schools, separate colleges, and branches.

[4] Does NOT include deans of separate colleges, who were reported in their academic fields.

[5] Head librarian and all professional librarians.

[6] Vice-president for student affairs, dean of students, etc.

[7] Includes deans of men, deans of women, and their assistants.

[8] Includes registered nurses.

[9] Food service, housing, bookstore, student union, etc.

[10] Institutions were instructed to report *only* professional instructional and research staff for those fields in which courses are *normally creditable* toward a baccalureate or higher degree in either the local institution or by transfer to another institution.

[11] Does NOT include agricultural education, forestry, botany; entomology, genetics, etc; plant pathology and physiology; home economics and home economics eduction; or landscape architecture.

[12] Does NOT include plant pathology.

[13] Does NOT include plant physiology.

[14] Does NOT include general programs in biological sciences.

[15] Does NOT include economics.

[16] Does NOT include trade and industrial training.

[17] Includes agricultural, art, business and commercial, distributive, home economics, and music education.

[18] Includes adult, audiovisual, nursing education, etc.

[19] Does NOT include agricultural and architectural engineering.

[20] Does NOT include general programs in humanities.

[21] Does NOT include area studies.

[22] Does NOT include "basis sciences" of the health professions.

[23] Does NOT include programs not creditable toward a baccalaureate degree.

[24] Does NOT include nursing education and programs in practical nursing.

[25] Does NOT include home economics education.

[26] Does NOT include biochemistry.

[27] Does NOT include biophysics.

[28] Does NOT include educational counseling and guidance.

[29] Does NOT include agricultural economics.

[30] Does NOT include general programs in social sciences.

[31] Does NOT include agricultural economics and industrial relations.

[32] Does NOT include industrial arts education and trade and industrial education.

[33] Institutions were instructed to report *only* professional, instructional and research staff for those fields in which courses are NOT normally creditable toward a baccalaureate or higher degree in either the local institution or by transfer to another institution; and NOT include *adult education* and *craftsman training.*

Table 5.—Total, full- , and part-time enrollment, October 1963; institutions' projections for October 1969; and projected 1963–69 percent increase: Seven selected types (three groups)[1] of institutions, aggregate United States

Kind of enrollment	October 1963 (actual)	October 1969 (projected)	Percent increase 1963–69 (projected)
Total	4,362,897	7,030,255	61.1
Full-time	2,985,241	4,836,127	62.0
Part-time	1,377,656	2,194,128	59.3

[1] *Group I:* Universities and technological schools; *Group II:* Liberal arts colleges and teachers colleges; *Group III:* 2-year insititutions—junior colleges, technical schools, and semiprofessional schools.

Table 6.—Percent distribution of answers given by 330 institutions of 7 selected types (3 groups)[1] to 11 assumptions: Aggregate United States, 1963–64 through 1969–70

Assumption concerning—	Percent distribution			
	Will increase	Will decrease	Will remain about the same	Institution made no assumption
1	2	3	4	5
1. Class size	53.7	1.8	42.1	2.4
2. Number of students per professional staff member	46.4	8.8	42.1	2.7
3. Number of semester or quarter hours comprising full-time teaching load	1.5	23.6	69.4	5.5
4. Percentage of total professional staff time devoted to research	50.6	.6	34.9	13.9
5. Percentage of total professional staff time devoted to administration	22.7	10.0	63.7	3.6
6. Changes in institutional policies and practices regarding salaries, promotions, tenure, retirement, and "fringe benefits" will affect the attractiveness of an academic career in such a way that faculty turnover	4.8	37.3	51.8	6.1
7. Percentage of professional staff employed on part-time basis	15.8	20.0	60.0	4.2
8. Usual retirement age for professional staff	6.1	2.7	86.7	4.5
9. Percentage of professional staff who are women	37.0	2.7	49.1	11.2
10. Level of preparation of new faculty	41.5	5.8	49.1	3.6
11. Number of weeks for which faculty is employed during the calendar year (at the responding institution itself)	21.2	2.1	71.2	5.5

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[1] By group, the 330 institutions giving answers to the assumptions were divided as follows: *Group I* (universities and technological schools)—197. *Group II* (liberal arts colleges and teachers colleges)—106. *Group III* (2 year institutions: junior colleges, technical schools, and semiprofessional schools)—37.

Totals for Public and Private Institutions

In the fall of 1963, the public institutions of higher education employed a total of 201,403 full- and part-time professional staff, or 57.6 percent of the total in the institutions covered by this study. The 109,998 estimated full-time additional staff needed for the years from November 1963 through October 1969 represents a 54.6 percent increase over the present total staff. For the same 6 years, these institutions project a 72.2 percent increase in total enrollment. Whereas, in the fall of 1963 the public colleges and universities enrolled 67.1 percent of all students in institutions covered by this study, these same institutions expect the percent to reach 71.7 by the fall of 1969. Their full-time professional staff is distributed by percent as follows:

Field	*1963 (actual)*	*1969 (projected)*
Administrative	15.9	15.0
Academic	80.9	81.0
Technical and semiprofessional	3.2	4.0

The private institutions employed a total of 148,163 full- and part-time staff, which amounted to 42.4 percent of the total staff employed by all institutions covered by this study. They estimate that additional full-time staff totaling 37,702 will be needed during the 6-year period being considered, or an increase of 25.4 percent in their total staff. For this same period, they project a 38.8 percent increase in total enrollment. In the fall of 1963, the private institutions enrolled 32.9 percent of all students in colleges and universities covered by this study, but in the fall of 1969 they expect the percent to drop to 28.3. Their full-time professional staff is distributed by percent as follows:

Field	*1963 (actual)*	*1969 (projected)*
Administrative	23.3	23.2
Academic	76.1	76.1
Technical and semiprofessional	0.6	0.7

Table 7.—Number and percent of *full-time* professional staff, October 1963, needed for *full-time* replacements and additions, November 1963– institutions, aggregate United States

Field	Staff, October 1963				
	Total		Number, by degree		
	Number	Percent	Bachelor's	Master's	Doctor's
1	2	3	4	5	6
Total, all fields	**158,645**	**100,0**	**23,100**	**9,672**	**65,873**
Administrative					
Total	*25,147*	*15,9*	*10,566*	*10,679*	*3,902*
General	4,800	3.0	1,713	1,999	1,088
Academic affairs	7,888	5.0	1,854	4,767	1,267
Student services	7,100	4.5	2,680	2,919	1,501
Business affairs	5,359	3.4	4,319	994	46
Academic					
Total	*128,362*	*80,9*	*10,450*	*56,279*	*61,625*
Agriculture and forestry	7,517	4.7	1,122	2,562	3,833
Biological sciences	10,395	6.6	506	2,396	7,493
Business and commerce	5,916	3.7	445	3,278	2,193
Education	20,304	12.8	1,738	10,942	7,624
Engineering (including architecture)	9,999	6.3	1,713	4,639	3,647
English and journalism	11,304	7.1	441	6,541	4,332
Fine and applied arts	9,953	6.3	833	6,423	2,697
Foreign languages	5,197	3.3	277	2,168	2,752
Geography	1,250	.8	8	661	581
Health professions	9,564	6.0	1,034	2,101	6,429
Home economics	2,098	1.3	224	1,401	473
Law	848	.5	310	251	287
Library science	368	.2	27	279	62
Mathematical subjects	6,184	3.9	352	3,225	2,607
Philosophy	1,055	.7	28	198	829
Physical sciences	10,464	6.6	803	3,254	6,407
Psychology	3,204	1.9	56	768	2,200
Religion	110	.1	3	37	70
Basic social sciences	11,365	7.2	256	4,347	6,762
Applied social sciences	829	.5	82	455	292
All other	6.8	.4	200	353	65
Technical and Semiprofessional					
Total	*5,136*	*3,2*	*2,076*	*2,714*	*346*
Engineering-related	1,599	1.0	873	691	35
Nonengineering-related	3,537	2.2	1,203	2,023	311

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[1] *Group 1:* Universities and technological schools; *Group II:* Liberal arts colleges and teachers colleges;

by *large field* and by degree; and estimated further number and percent October 1969, by large field: Seven selected types (3 groups)[1] of *public*

Staff, October 1963—Continued			Estimated further staff needs, November 1963–October 1969					
Percent, by degree			Total		Number		Percent	
Bachelor's	Master's	Doctor's	Number	Percent	Replacements	Additions	Replacements	Additions
7	8	9	10	11	12	13	14	15
14.6	**43.9**	**41.5**	**139,301**	**100.0**	**29,303**	**109,998**	**21.0**	**79.0**
42.0	*42.5*	*15.5*	*19,818*	*14.2*	*4,648*	*15,170*	*23.5*	*76.5*
35.7	41.6	22.7	3,613	2.6	807	2,806	22.3	77.7
23.5	60.4	17.1	5,833	4.2	1,458	4,375	25.0	75.0
37.7	41.1	21.2	6,201	4.5	1,372	4,829	22.1	77.9
80.6	18.5	.9	4,171	3.0	1,011	3,160	24.2	75.8
8.2	*43.8*	*48.0*	*113,051*	*81.2*	*23,877*	*89,174*	*21.1*	*78.9*
14.9	34.1	51.0	2,983	2.1	1,343	1,640	45.0	55.0
4.9	23.0	72.1	9,007	6.5	1,908	7,099	21.2	78.8
7.5	55.4	37.1	5,665	4.1	1,090	4,575	19.2	80.8
8.6	53.9	37.5	14,940	10.7	3,481	11,459	23.3	76.7
17.1	46.4	36.5	7,181	5.2	2,153	5,028	30.0	70.0
3.9	57.9	38.2	11,451	8.2	2,059	9,392	18.0	82.0
8.4	64.5	27.1	9,153	6.6	1,583	7,570	17.3	82.7
5.3	41.7	53.0	6,381	4.6	980	5,401	15.4	84.6
.6	52.9	46.5	1,267	.9	157	1,110	12.4	87.6
10.8	22.0	67.2	7,332	5.3	2,087	5,245	28.5	71.5
10.7	66.8	22.5	1,526	1.1	485	1,041	31.8	68.2
36.6	29.6	33.8	505	.4	152	353	30.1	69.9
7.3	75.8	16.9	377	.3	60	317	15.9	84.1
5.7	52.1	42.2	6,486	4.7	1,157	5,329	17.8	82.2
2.6	18.8	78.6	1,393	1.0	202	1,191	14.5	85.5
7.7	31.1	61.2	9,710	7.0	1,922	7,788	19.8	80.2
1.8	25.4	72.8	3,780	2.7	618	3,162	16.3	83.7
2.7	33.6	63.7	149	.1	42	107	28.2	71.8
2.3	38.2	59.5	12,530	9.0	2,155	10,375	17.2	82.8
9.9	54.9	35.2	635	.5	172	463	27.1	72.9
32.4	57.1	10.5	600	.4	71	529	11.8	88.2
40.4	*52.9*	*6.7*	*6,432*	*4.6*	*778*	*5,654*	*12.1*	*87.9*
54.6	43.2	2.2	2,686	1.9	247	2,439	9.2	90.8
34.0	57.2	8.8	3,746	2.7	531	3,215	14.2	85.8

Group III: **2-year institutions—junior colleges, technical schools, and semiprofessional schools.**

Table 8.—Number and percent of *part-time* professional staff, by *large field* selected types (three groups)[1] of *public*

Field	Part-time staff Total Number	Part-time staff Total Percent
1	2	3
Total, all fields	**42,578**	**100.0**
Administrative		
Total	*2,458*	*5.8*
General	232	.5
Academic affairs	470	1.1
Student services	1,344	3.2
Business affairs	412	1.0
Academic		
Total	*37,212*	*87.4*
Agriculture and forestry	688	1.6
Biological sciences	1,703	4.0
Business and commerce	3,222	7.6
Education	4,465	10.5
Engineering (including architecture)	2,106	4.9
English and journalism	2,980	7.0
Fine and applied arts	2,723	16.4
Foreign languages	1,697	4.0
Geography	166	.4
Health professions	6,282	14.8
Home economics	431	1.0
Law	384	.9
Library science	140	.3
Mathematical subjects	2,527	5.9
Philosophy	334	.8
Physical sciences	2,484	5.8
Psychology	1,383	3.2
Religion	64	.2
Basic social sciences	3,000	7.0
Applied social sciences	272	.6
All other	161	.4
Technical and Semiprofessional		
Total	*2,908*	*6.8*
Engineering-related	1,794	4.2
Nonengineering-related	1,114	2.6

[1] *Group I:* Universities and technological schools; *Group II:* Liberal arts colleges and teachers colleges;

and by degree; total, and part-time as percent of total, by large field: Seven institutions, aggregate United States, October 1963

Part-time staff—Continued						Total staff	Part-time as percent of total
Number by degree			Percent by degree				
Bachelor's	Master's	Doctor's	Bachelor's	Master's	Doctor's		
4	5	6	7	8	9	10	11
11,402	19,580	11,596	26.8	46.0	27.2	201,223	21.2
848	*928*	*688*	*34.2*	*37.8*	*28.0*	*27,605*	*8.9*
63	137	32	27.2	59.0	13.8	5,032	4.6
167	249	54	35.5	53.0	11.5	8,358	5.6
283	471	590	21.1	35.0	43.9	8,444	15.9
329	71	12	79.9	17.2	2.9	5,771	7.1
8,699	*17,723*	*10,790*	*23.4*	*47.6*	*29.0*	*165,574*	*22.5*
267	259	162	38.8	37.7	23.5	8,205	8.4
430	593	680	25.0	34.8	39.9	12,098	14.1
1,166	1,812	244	36.2	56.2	7.6	9,138	35.3
1,057	2,501	907	23.7	56.0	20.3	24,769	18.0
743	1,109	254	35.3	52.6	12.1	12,105	17.4
708	2,004	268	23.8	67.2	9.0	14,284	20.9
882	1,602	239	32.4	58.8	8.8	12,676	21.5
498	980	219	29.4	57.7	12.9	6,894	24.6
56	81	29	33.7	48.8	17.5	1,416	11.7
337	333	5,612	5.4	5.3	89.3	15,846	39.6
203	190	38	47.1	44.1	8.8	2,529	17.0
293	36	55	76.3	9.4	14.3	1,232	31.2
6	129	5	4.3	92.1	3.6	508	27.6
627	1,672	228	24.8	66.2	9.0	8,711	29.0
25	203	106	7.5	60.8	31.7	1,389	24.0
816	1,174	494	32.8	47.3	19.9	12,948	19.2
144	728	501	10.4	53.4	36.2	4,407	31.4
8	50	6	12.5	78.1	9.4	174	36.8
314	2,045	641	10.4	68.2	21.4	14,365	20.9
45	155	72	16.5	57.0	26.5	1,101	24.7
74	57	30	46.0	35.4	18.6	779	20.7
1,861	*919*	*118*	*64.9*	*31.9*	*4.1*	*8,044*	*36.2*
1,216	516	62	67.8	28.8	2.4	3,393	52.9
645	413	56	57.9	37.1	5.0	4,651	24.0

Group III: 2-year institutions—junior colleges, technical schools, and semiprofessional schools.

Table 9.—Number and percent of *full-time* professional staff, October 1963, needed for *full-time* replacements and additions, November 1963– institutions, aggregate United States

Field	Staff, October 1963				
	Total		Number, by degree		
	Number	Percent	Bachelor's	Master's	Doctor's
1	2	3	4	5	6
Total, all fields	**105,968**	**100.0**	**20,769**	**41,183**	**44,016**
Administrative					
Total	*24,668*	*23.3*	*12,695*	*8,654*	*3,319*
General	7,609	7.2	4,090	2,415	1,104
Academic affairs	5,882	5.6	1,791	2,965	1,126
Student services	5,460	5.2	2,407	2,099	954
Business affairs	5,717	5.4	4,407	1,175	135
Academic					
Total	*80,698*	*76.2*	*7,716*	*32,372*	*40,610*
Agriculture and forestry	114	.1	4	83	27
Biological sciences	6,490	6.1	145	1,319	5,025
Business and commerce	4,587	4.3	1,036	2,455	1,096
Education	7,860	7.4	1,338	4,116	2,406
Engineering (including architecture)	5,209	4.9	1,245	1,872	2,092
English and journalism	6,214	5.9	426	3,179	2,609
Fine and applied arts	6,760	6.4	813	4,621	1,326
Foreign languages	6,107	5.8	418	2,663	3,026
Geography	258	.2	7	77	174
Health professions	7,418	7.0	399	1,538	5,481
Home economics	738	.7	61	617	60
Law	637	.6	202	251	184
Library science	227	.2	8	155	64
Mathematical subjects	3,829	3.6	396	1,879	1,554
Philosophy	2,184	2.1	65	828	1,291
Physical sciences	7,376	7.0	534	1,575	5,267
Psychology	2,452	2.3	109	519	1,824
Religion	2,801	2.6	210	1,200	1,391
Basic social sciences	8,717	8.2	268	2,990	5,459
Applied social sciences	614	.6	19	372	223
All other	106	.1	13	63	30
Technical and Semiprofessional					
Total	*602*	*.6*	*358*	*157*	*87*
Engineering-related	438	.4	259	117	62
Nonengineering-related	164	.2	99	40	25

[1] *Group I:* Universities and technological schools; *Group II:* Liberal arts colleges and teachers colleges;

by *large field* and by degree; and estimated further number and percent October 1969, by large field: Seven selected types (3 groups)[1] of *private*

Staff, October 1963—Continued			Estimated further staff needs, November 1963–October 1969					
Percent, by degree			Total		Number		Percent	
Bachelor's	Master's	Doctor's	Number	Percent	Replacements	Additions	Replacements	Additions
7	8	9	10	11	12	13	14	15
19.6	**38.9**	**41.5**	**59,837**	**100.0**	**22,135**	**37,702**	**37.0**	**63.0**
51.4	*35.1*	*13.5*	*13,473*	*22.5*	*4,854*	*8,619*	*36.0*	*64.0*
53.8	31.7	14.5	4,105	6.9	1,524	2,581	37.1	62.9
30.5	50.4	19.1	3,064	5.1	1,018	2,046	33.2	66.8
44.1	38.4	17.5	3,330	5.6	1,280	2,050	38.4	61.6
77.1	20.5	2.4	2,974	5.0	1,032	1,942	34.7	65.3
9.6	*40.1*	*50.3*	*45,757*	*76.5*	*17,108*	*28,649*	*37.4*	*62.6*
3.5	72.8	23.7	53	.1	28	25	52.8	47.2
2.2	20.3	77.5	3,109	5.0	1,035	1,984	34.3	65.7
22.6	53.5	23.9	3,321	5.6	1,104	2,217	33.2	66.8
17.0	52.4	30.6	4,527	7.6	1,528	2,999	33.8	66.2
23.9	35.9	40.2	2,641	4.4	1,177	1,464	44.6	55.4
6.9	51.1	42.0	3,820	6.4	1,557	2,273	40.7	59.3
12.0	68.4	10.6	3,462	5.8	1,213	2,249	35.0	65.0
6.9	43.6	49.5	3,626	6.1	1,552	2,074	42.8	57.2
2.7	29.9	67.4	205	.3	69	136	33.7	66.3
5.4	20.7	73.9	2,862	4.8	1,152	1,710	40.3	59.7
8.3	83.6	8.1	432	.7	281	151	65.0	35.0
31.7	39.4	28.9	358	.6	126	232	35.2	64.8
3.5	68.3	28.2	318	.5	91	227	28.6	71.4
10.3	49.1	40.6	2,587	4.3	939	1,648	36.3	63.7
3.0	37.9	59.1	1,321	2.2	512	809	38.8	61.2
7.2	21.4	71.4	4,087	6.8	1,473	2,614	36.0	64.0
4.4	21.2	74.4	1,430	2.4	446	984	31.2	68.8
7.5	42.8	49.7	1,751	2.9	692	1,059	39.3	60.5
3.1	34.3	62.6	5,286	8.8	1,917	3,369	36.3	63.7
3.1	60.6	36.3	611	1.0	204	407	33.4	66.6
12.3	59.4	28.3	30	.1	12	18	40.0	60.0
59.5	*26.1*	*14.4*	*607*	*1.0*	*173*	*434*	*28.5*	*71.5*
59.1	26.7	14.2	438	.7	144	294	32.9	67.1
60.4	24.4	15.2	169	.3	29	140	17.2	82.8

Group III: 2-year institutions—junior colleges, technical schools, and semiprofessional schools.

Table 10.—Number and percent of *part-time* professional staff, by *large field* selected types[1] (three groups) of *private*

Field	Part-time staff	
	Total	
	Number	Percent
1	2	3
Total, all fields	**42,195**	**100.0**
Administrative		
Total	*3,337*	*8.0*
General	862	2.0
Academic affairs	446	1.1
Student services	1,699	4.0
Business affairs	330	.8
Academic		
Total	*38,426*	*91.1*
Agriculture and forestry	18	0
Biological sciences	1,647	3.9
Business and commerce	3,193	7.6
Education	3,119	7.4
Engineering (including architecture)	1,850	4.4
English and journalism	1,782	4.2
Fine and applied arts	3,059	7.2
Foreign languages	1,637	3.9
Geography	176	.4
Health professions	13,206	31.3
Home economics	119	.3
Law	402	1.0
Library science	358	.8
Mathematical subjects	1,314	3.1
Philosophy	514	1.2
Physical sciences	1,331	3.2
Psychology	1,040	2.5
Religion	1,056	2.5
Basic social sciences	2,257	5.4
Applied social science	284	.7
All others	46	.1
Technical and Semiprofessional		
Total	*432*	*1.0*
Engineering-related	343	.8
Nonengineering-related	89	.2

[1] *Group I:* Universities and technological schools; *Group II:* liberal arts colleges and teachers colleges

and by degree; total, and part-time as percent of total, by large field: Seven institutions:[1] Aggregate United States, October 1963

Part-time staff—Continued						Total staff	Part-time as percent of total
Number by degree			Percent by degree				
Bachelor's	Master's	Doctor's	Bachelor's	Master's	Doctor's		
4	5	6	7	8	9	10	11
8,575	**14,254**	**19,366**	**20.3**	**33.8**	**45.9**	**152,697**	**27.6**
1,303	*1,174*	*860*	*39.0*	*35.2*	*25.8*	*28,005*	*11.9*
388	413	61	45.0	47.9	7.1	8,471	10.2
233	158	55	52.3	35.4	12.3	6,328	7.0
414	564	721	24.4	33.2	42.4	7,159	23.7
268	39	23	81.2	11.8	7.0	6,047	5.5
7,061	*12,880*	*18,485*	*18.4*	*33.5*	*48.1*	*119,124*	*32.3*
2	15	1	11.1	83.3	5.6	132	13.6
236	280	1,131	14.3	17.0	68.7	8,137	20.2
1,025	1,849	319	32.1	57.9	10.0	7,780	41.0
589	1,835	695	18.9	58.8	22.3	10,979	28.4
612	869	369	33.1	47.0	19.9	7,059	26.2
426	1,077	279	23.9	60.4	15.7	7,996	22.3
1,435	1,470	154	46.9	48.1	5.0	9,819	31.2
432	868	337	26.4	53.0	20.6	7,744	21.1
10	90	76	5.7	51.1	43.2	434	40.6
839	305	12,062	6.4	2.3	91.3	20,624	64.0
22	94	3	18.5	79.0	2.5	857	13.9
249	93	60	62.0	23.1	14.9	1,039	38.7
139	210	9	38.8	58.7	2.5	585	61.2
272	791	251	20.7	60.2	19.1	5,143	25.5
42	199	273	8.2	38.7	53.1	2,698	19.1
269	558	504	20.2	41.9	37.9	8,707	15.3
54	317	669	5.2	30.5	64.3	3,492	29.8
114	550	392	10.8	52.1	37.1	3,857	27.4
219	1,232	824	9.6	54.2	36.2	10,992	20.7
49	163	72	17.3	57.4	25.3	898	31.6
26	15	5	56.5	32.6	10.9	152	30.3
211	*200*	*21*	*48.8*	*46.3*	*4.9*	*5,568*	*7.8*
179	149	15	52.2	43.4	4.4	1,942	17.7
32	51	6	36.0	57.3	6.7	3,636	2.5

Group III: 2-year institutions—junior colleges, technical schools, and semiprofessional schools.

Table 11.—Total, full-, and part-time enrollment, October 1963; institutions' projections for October 1969; and projected 1963–69 percent increase, by *public and private* control: Seven selected types (3 groups)[1] of institutions, aggregate United States

Kind of enrollment	October 1963 (actual)	October 1969 (projected)	Percent increase 1963–69 (projected)
Total, public and private	**4,362,897**	**7,030,255**	**61.1**
Public Control			
Total	*2,927,505*	*5,040,326*	*72.2*
Full-time	1,969,632	3,390,860	72.2
Part-time	957,873	1,649,466	72.2
Private Control			
Total	*1,435,392*	*1,989,929*	*38.6*
Full-time	1,015,609	1,445,267	42.3
Part-time	419,783	544,662	29.7

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[1] *Group I:* Universities and technological schools; *Group II:* Liberal arts colleges and teachers colleges; *Group III:* 2-year institutions—junior colleges, technical schools, and semiprofessional schools.

Table 12.—Percent distribution of answers given by 330 institutions of 7 selected types (3 groups)[1] to 11 assumptions, by public and private control: Aggregate United States, 1963–64 through 1969–70

Assumption concerning—	Percent distribution			
	Will increase	Will decrease	Will remain about the same	Institution made no assumption
1	2	3	4	5
	PUBLIC CONTROL [2]			
1. Class size	57.5	1.8	37.1	3.6
2. Number of students per professional staff member	46.7	10.2	40.1	3.0
3. Number of semester or quarter hours comprising full-time teaching load	1.2	22.7	68.3	7.8
4. Percentage of total professional staff time devoted to research	52.1	.6	35.9	11.4
5. Percentage of total professional staff time devoted to administration	22.1	9.6	65.3	3.0

See footnotes at end of table.

Table 12.—Percent distribution of answers given by 330 institutions of 7 selected types (3 groups)[1] to 11 assumptions, by public and private control: Aggregate United States, 1963–64 through 1969–70—Continued

Assumption concerning—	Percent distribution			
	Will increase	Will decrease	Will remain about the same	Institution made no assumption
1	2	3	4	5
	PUBLIC CONTROL [2]—Continued			
6. Changes in institutional policies and practices regarding salaries, promotions, tenure, retirement, and "fringe benefits" affecting the attractiveness of an academic career and thus causing faculty turnover	6.0	34.1	54.5	5.4
7. Percentage of professional staff employed on part-time basis	19.7	14.4	62.3	3.6
8. Usual retirement age for professional staff	4.8	2.4	89.2	3.6
9. Percentage of professional staff who are women	38.3	3.0	49.1	9.6
10. Level of preparation of new faculty	35.3	8.4	50.9	5.4
11. Number of weeks for which faculty is employed during the calendar year (at the responding institution itself)	25.1	3.0	66.5	5.4
	PRIVATE CONTROL [3]			
1. Class size	49.7	1.8	47.3	1.2
2. Number of students per professional staff member	46.0	7.4	44.2	2.4
3. Number of semester or quarter hours comprising full-time teaching load	1.8	24.5	70.6	3.1
4. Percentage of total professional staff time deavoted to research	49.1	.6	33.7	16.6

See footnotes at end of table.

Table 12.—Percent distribution of answers given by 330 institutions of 7 selected types (3 groups)[1] to 11 assumptions, by public and private control: Aggregate United States, 1963–64 through 1969–70—Continued

Assumption concerning—	Percent distribution			
	Will increase	Will decrease	Will remain about the same	Institution made no assumption
1	2	3	4	5
	PRIVATE CONTROL [3]—Continued			
5. Percentage of total professional staff time devoted to administration	23.3	10.4	62.0	4.3
6. Changes in institutional policies and practices regarding salaries, promotions, tenure, retirement, and "fringe benefits" affecting the attractiveness of an academic career and thus causing a faculty turnover	3.7	40.5	49.1	6.7
7. Percentage of professional staff employed on part-time basis	11.6	25.8	57.7	4.9
8. Usual retirement age for professional staff	7.4	3.4	84.0	5.5
9. Percentage of professional staff who are women	35.6	2.4	49.1	12.9
10. Level of preparation of new faculty	47.9	3.1	47.2	1.8
11. Number of weeks for which faculty is employed during the calendar year (at the responding institution itself)	17.2	1.2	76.1	5.5

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[1] By group, the 330 insititutions giving answers to the assumptions were divided as follows: *Group I* (universities and technological schools)—197. *Group II* (liberal arts colleges and teachers colleges)—106 *Group III* (2-year institutions: junior colleges, technical schools, and semiprofessional schools)—37.

[2] 167 institutions.

[3] 163 institutions.

Totals by Type of Institution

The universities and technological schools in the fall of 1963 employed 184,188 full- and part-time professional staff, of whom 53.2 percent held the doctorate. This number comprised 52.7 percent of the total professional staff of all types of institutions covered by this study. The universities and technological schools estimate their November 1963–October 1969 requirements for additional full-time staff as 56,360. During the same 6 years these institutions project an enrollment increase of 43.6 percent. Whereas, in the fall of 1963 they enrolled 43 percent of all students in the institutions covered by this study, they expect the percent to decrease to 38.3 in the fall of 1969.

The liberal arts colleges and teachers colleges employed 120,603 full- and part-time professional staff in the fall of 1963, of whom 32.1 percent held the doctorate. These colleges employed 34.5 percent of the total professional staff of all types of colleges and universities covered by this study. The liberal arts colleges and teachers colleges estimate their demand for additional full-time staff as 52,868 from November 1963 through October 1969. For the same years, they project an enrollment increase of 48.2 percent. In the fall of 1963 they enrolled 37.7 percent of all students in institutions covered by this study, but they expect the percent to drop to 34.7 in the fall of 1969.

The 2-year institutions employed a total of 44,573 full- and part-time professional staff in the fall of 1963, of whom 9.3 percent held the doctorate. These institutions employed 12.8 percent of the total professional staff of all types of colleges and universities covered by this study. These 2-year institutions estimate their demand for additional full-time staff as 38,472 from November 1963 through October 1969. During the same 6 years, these institutions project a 125.5–percent enrollment increase. They enrolled 19.3 percent of all students enrolled in the fall of 1963 at the colleges and universities covered by this study, and they expect the percent to increase to 27.0 in the fall of 1969.

It is obvious that the 125.5–percent enrollment increase expected by the 2-year institutions will be at a rate far more rapid than the 43.6–percent and 48.2–percent rates expected by the other two groups of institutions.

Table 13.—Number and percent of *full-time* professional staff, October 1963, needed for *full-time* replacements and additions, November 1963–October United States

Field	Staff, October 1963				
	Total		Number, by degree		
	Number	Percent	Bachelor's	Master's	Doctor's
1	2	3	4	5	6
Total, all fields	**136,970**	**100.0**	**22,880**	**41,135**	**72,955**
Administrative					
Total	*20,998*	*15.3*	*11,211*	*6,859*	*2,928*
General	4,533	3.3	2,461	1,360	712
Academic affairs	6,160	4.5	2,092	3,132	936
Student services	5,063	3.7	2,339	1,516	1,208
Business affairs	5,242	3.8	4,319	851	72
Academic					
Total	*114,604*	*83.8*	*11,150*	*33,755*	*69,699*
Agriculture and forestry	6,914	5.1	1,095	2,215	3,604
Biological sciences	10,971	8.0	490	1,031	9,450
Business and commerce	4,840	3.5	292	2,029	2,519
Education	10,336	7.6	1,227	4,215	4,894
Engineering (including architecture)	13,881	10.1	2,751	5,684	5,446
English and journalism	6,710	4.9	310	2,882	3,518
Fine and applied arts	6,697	4.9	912	3,530	2,255
Foreign languages	4,609	3.4	241	1,389	2,979
Geography	575	.4	13	140	422
Health professions	15,647	11.4	1,305	2,605	11,737
Home economics	1,575	1.2	209	935	431
Law	1,352	1.0	435	468	449
Library science	302	.2	33	172	97
Mathematical subjects	4,919	3.6	324	1,609	2,986
Philosophy	1,243	.9	41	238	964
Physical sciences	10,586	7.7	952	1,550	8,084
Psychology	2,571	1.9	47	276	2,248
Religion	745	.5	39	241	465
Basic social sciences	8,593	6.3	246	1,740	6,607
Applied social sciences	1,315	1.0	99	734	482
All other	223	.2	89	72	62
Technical and Semiprofessional					
Total	*1,368*	*1.0*	*519*	*521*	*328*
Engineering-related	501	.4	218	188	95
Nonengineering-related	867	.6	301	333	233

by *large field* and by degree; and estimated further number and percent 1969, by large field: *Universities and technological schools,* aggregate

Staff, October 1963—Continued			Estimated further staff needs, November 1963–October 1969					
Percent, by degree			Total		Number		Percent	
Bachelor's	Master's	Doctor's	Number	Percent	Replacements	Additions	Replacements	Additions
7	8	9	10	11	12	13	14	15
16.7	30.0	53.3	83,104	100.0	26,744	56,360	32.2	67.8
53.4	*32.7*	*13.9*	*11,105*	*13.4*	*4,047*	*7,058*	*36.4*	*63.6*
54.3	30.0	15.7	1,976	2.4	681	1,295	34.5	65.5
34.0	50.8	15.2	3,438	4.1	1,203	2,235	35.0	65.0
46.2	29.9	23.9	2,984	3.6	1,136	1,848	38.1	61.9
82.4	16.2	1.4	2,707	3.3	1,027	1,680	37.9	62.1
9.7	*29.5*	*60.8*	*70,747*	*85.1*	*22,435*	*48,312*	*31.7*	*68.3*
15.8	32.1	52.1	2,824	3.4	1,323	1,501	46.8	53.2
4.5	9.4	86.1	6,388	7.7	1,879	4,509	29.4	70.6
6.0	41.9	52.1	3,391	4.1	1,085	2,306	32.0	68.0
11.9	40.8	47.3	6,594	7.9	2,000	4,594	30.3	69.7
19.8	41.0	39.2	8,817	10.6	3,089	5,728	35.0	65.0
4.6	43.0	52.4	4,364	5.3	1,272	3,092	29.1	70.9
13.6	52.7	33.7	4,083	4.9	1,294	2,789	31.7	68.3
5.2	30.2	64.6	3,106	3.7	846	2,260	27.2	72.8
2.3	24.3	73.4	432	.5	106	326	24.5	75.5
8.4	16.6	75.0	8,558	10.3	3,003	5,555	35.1	64.9
13.3	59.3	27.4	1,008	1.2	424	584	42.1	57.9
32.2	34.6	33.2	775	.9	266	509	34.3	65.7
10.9	57.0	32.1	225	.3	73	152	32.4	67.6
6.6	32.7	60.7	3,719	4.5	1,067	2,652	28.7	71.3
3.3	19.1	77.6	732	.9	222	510	30.3	69.7
9.0	14.6	76.4	6,868	8.3	1,955	4,913	28.5	71.5
1.8	10.7	87.5	1,731	2.1	456	1,275	26.3	73.7
5.2	32.4	62.4	406	.5	176	230	43.3	56.7
2.9	20.2	76.9	5,787	7.0	1,587	4,200	27.4	72.6
7.5	55.8	36.7	716	.9	260	456	36.3	63.7
39.9	32.3	27.8	223	.3	52	171	23.3	76.7
37.9	*38.1*	*24.0*	*1,252*	*1.5*	*262*	*990*	*20.9*	*79.1*
43.5	37.5	19.0	610	.7	118	492	19.3	80.7
34.7	38.4	26.9	642	.9	144	498	22.4	77.6

Table 14.—Number and percent of *part-time* professional staff, by *large field*
Universities and technological schools,

Field	Part-time staff	
	Total	
	Number	Percent
1	2	3
Total, all fields	**47,218**	**100.0**
Administrative		
Total	*2,087*	*4.4*
General	150	.3
Academic affairs	279	.6
Student services	1,336	2.8
Business affairs	322	.7
Academic		
Total	*43,857*	*92.9*
Agriculture and forestry	682	1.4
Biological sciences	2,155	4.6
Business and commerce	2,585	5.5
Education	2,967	6.3
Engineering (including architecture)	3,251	6.9
English and journalism	1,568	3.3
Fine and applied arts	1,712	3.6
Foreign languages	1,088	2.3
Geography	108	.2
Health professions	19,247	40.8
Home economics	267	.6
Law	578	1.2
Library science	110	.2
Mathematical subjects	1,747	3.7
Philosophy	183	.4
Physical sciences	2,005	4.2
Psychology	863	1.8
Religion	179	.4
Basic social sciences	1,982	4.2
Applied social sciences	475	1.0
All other	105	.2
Technical and Semiprofessional		
Total	*1,274*	*2.7*
Engineering-related	713	1.5
Nonengineering-related	561	1.2

and by degree; total, and part-time as percent of total, by large field: aggregate United States, October 1963

Part-time staff—Continued						Total staff	Part-time as percent of total
Number by degree			Percent by degree				
Bachelor's	Master's	Doctor's	Bachelor's	Master's	Doctor's		
4	5	6	7	8	9	10	11
9,789	**12,441**	**24,988**	**20.7**	**26.4**	**52.9**	**184,188**	**25.6**
820	*523*	*744*	*39.3*	*25.1*	*35.6*	*23,085*	*9.0*
66	59	25	44.0	39.3	16.7	4,683	3.2
102	116	61	36.5	41.6	21.9	5,439	4.3
419	273	644	31.4	20.4	48.2	6,399	20.9
233	75	14	72.4	23.3	4.3	5,564	5.8
8,357	*11,385*	*24,115*	*19.0*	*26.0*	*55.0*	*158,461*	*27.7*
269	252	161	39.4	37.0	23.6	7,596	9.0
388	313	1,454	18.0	14.5	67.5	13,126	16.4
871	1,396	318	33.7	54.0	12.3	7,425	34.8
628	1,594	745	21.2	53.7	25.1	13,303	22.3
1,168	1,508	575	35.9	46.4	17.7	17,132	19.0
411	971	186	26.2	61.9	11.9	8,278	18.9
826	722	164	48.2	42.2	9.6	8,409	20.4
293	550	245	26.9	50.6	22.5	5,697	19.1
26	47	35	24.1	43.5	32.4	683	15.8
1,058	609	17,580	5.5	3.2	91.3	34,894	55.2
105	125	37	39.3	46.8	13.9	1,842	14.5
370	116	92	64.0	20.1	15.9	1,930	29.9
23	75	12	20.9	68.2	10.9	412	26.7
537	899	311	30.7	51.5	17.8	6,666	26.2
29	94	50	15.8	51.4	32.8	1,426	12.8
763	628	614	38.1	31.3	30.6	12,591	15.9
126	260	477	14.6	30.1	55.3	3,434	25.1
25	80	74	14.0	44.7	41.3	924	19.4
307	849	826	15.5	42.8	41.7	10,575	18.7
68	271	136	14.3	57.1	28.6	1,790	26.5
66	26	13	62.8	24.8	12.4	328	32.0
612	*533*	*129*	*48.1*	*41.8*	*10.1*	*2,642*	*48.2*
349	289	75	49.0	40.5	10.5	1,214	58.7
263	244	54	46.9	43.5	9.6	1,428	39.3

Table 15.—Number and percent of *full- and part-time* professional staff, October 1963, by *detailed field* and by degree; and estimated further number and percent needed for full-time replacements and additions, November 1963–October 1969, by detailed field: *Universities and technological schools*, aggregate United States

Field	Staff, October 1963										Estimated further full-time staff needed November 1963–October 1969		
	Full-time					Part-time							
	Total		Bachelor's	Master's	Doctor's	Total		Bachelor's	Master's	Doctor's	Total	Replacements	Additions
	Number	Percent				Number	Percent						
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	SUMMARY												
Grand total, all fields	136,970	100.0	22,880	41,135	72,955	2,087	100.0	9,789	12,441	24,988	83,104	26,744	56,360
Total, administrative	20,998	15.3	11,211	6,859	2,928	2,087	4.4	820	523	744	11,105	4,047	7,058
Total, academic	114,604	83.7	11,150	33,755	69,699	43,857	92.7	8,357	11,385	24,115	70,747	22,435	48,312
Total, technical and semiprofessional	1,368	1.0	519	521	328	1,274	2.7	612	533	129	1,252	262	990
	ADMINISTRATIVE FIELDS [1]												
Total	20,998	15.3	11,211	6,859	2,928	2,087	4.4	820	523	744	11,105	4,047	7,058
General													
Total	*4,533*	*21.6*	*2,401*	*1,360*	*712*	*150*	*.3*	*66*	*59*	*25*	*1,976*	*681*	*1,295*
Chief administrative officer	243	1.2	30	30	183	3	0	1	1	1	68	54	14
Officers for public relations, planning and development, alumni, etc.	1,397	6.7	930	337	130	57	.1	41	10	6	664	210	454

Admissions and recruitment officers	627	3.0	262	286	79	14	0	4	8	2	383	116	267
Registrars and assistant registrars [2]	565	2.7	303	214	48	9	0	5	4	0	308	98	210
Other	1,701	8.1	936	493	272	67	.1	15	36	16	553	203	350
Academic Affairs													
Total	*6,160*	*29.3*	*2,092*	*3,132*	*936*	*279*	*.6*	*102*	*116*	*61*	*3,438*	*1,203*	*2,235*
Chief academic officer, academic vice-president, dean of faculties, academic dean, dean of instruction, etc.[3]	285	1.4	29	41	215	15	0	3	3	9	160	63	97
Graduate dean and assistant graduate deans	278	1.3	12	17	249	55	.1	6	19	30	172	62	110
Librarians [4]	4,654	22.4	1,661	2,781	212	168	.4	79	82	7	2,698	949	1,749
Other	943	4.5	390	293	260	41	.1	14	12	15	408	129	279
Student Services													
Total	*5,063*	*24.1*	*2,339*	*1,516*	*1,208*	*1,336*	2.8	*419*	*273*	*644*	*2,984*	*1,136*	*1,848*
Chief student services officer [5]	231	1.1	40	68	123	4	0	1	1	2	95	44	51
Assistant student services officers [6]	1,006	4.8	281	570	155	131	.3	76	39	16	553	209	344
Counseling, advisory, and testing personnel	1,169	5.6	276	473	420	279	.6	93	134	52	761	232	529
Health services personnel [7]	1,930	9.2	1,332	152	446	787	1.7	169	48	570	1,153	529	624
Other	727	3.5	410	253	64	135	.3	80	51	4	422	122	300
Business Affairs													
Total	*5,242*	*25.0*	*4,319*	*851*	*72*	*322*	*.7*	*75*	*14*	*322*	*2,707*	*1,027*	*1,680*
Chief business officer	287	1.4	152	112	23	5	0	4	1	0	95	49	46
Accounting and purchasing officers	1,236	5.9	1,056	174	6	8	0	3	5	0	603	217	386
Physical plant management staff (including engineers)	967	4.6	840	120	7	20	0	15	4	1	494	161	233
Auxiliary services management staff [8]	1,799	8.6	1,502	281	16	258	.5	190	60	8	1,084	443	641
Other	953	4.5	769	164	20	31	.1	21	5	5	431	157	274
ACADEMIC FIELDS [9]													
Total	**114,604**	**83.7**	**11,150**	**33,755**	**69,699**	**43,857**	**92.9**	**8,357**	**11,385**	**24,115**	**70,747**	**22,435**	**48,312**
Agriculture *(Includes agricultural economics and agricultural engineering)* [10]													
Total	*6,393*	*5.6*	*1,060*	*2,002*	*3,331*	*656*	*.6*	*260*	*241*	*155*	*2,507*	*1,224*	*1,283*

See footnotes at end of table.

Table 15.—Number and percent of *full- and part-time* professional staff, October 1963, by *detailed field* and by degree; and estimated further number and percent needed for full-time replacements and additions, November 1963–October 1969, by detailed field: *Universities and technological schools*, aggregate United States—Continued

Field	Staff, October 1963										Estimated further full-time staff needed November 1963–October 1969		
	Full-time					Part-time							
	Total		Bachelor's	Master's	Doctor's	Total		Bachelor's	Master's	Doctor's	Total	Replacements	Additions
	Number	Percent				Number	Percent						
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	ACADEMIC FIELDS [8]—Continued												
Architecture **(*Includes architecutral engineering*)**													
Total	*1,009*	*.9*	*386*	*574*	*49*	*326*	*.4*	*187*	*117*	*22*	*646*	*232*	*414*
Biological Sciences **(*Includes all "basic sciences" of the health professions*)**													
Total	*10,971*	*9.6*	*490*	*1,031*	*9,450*	*2,155*	*.9*	*388*	*313*	*1,454*	*6,388*	*1,879*	*4,509*
General biology	938	.8	32	171	735	296	.2	97	94	105	688	199	489
General botany	897	.8	20	103	774	117	.1	50	39	28	510	159	351
General zoology	1,138	1.0	67	110	961	172	.2	67	38	67	717	193	524
Anatomy and histology	937	.8	53	88	796	181	0	21	18	142	524	167	357
Bacteriology, microbiology, mycology, parasitology, and virology	1,310	1.1	60	126	1,124	191	.1	38	41	112	836	232	604

Biochemistry	1,230	1.1	50	67	1,113	181	0	22	16	143	761	217	544
Pathology [11]	981	.9	55	43	883	550	0	21	21	508	465	151	314
Pharmacology	556	.5	23	36	497	100	0	5	8	87	291	110	181
Physiology [12]	812	.7	25	51	736	207	.1	39	16	152	500	151	349
Biophysics, cytology, ecology, embryology, entomology, genetics, plant pathology, plant physiology, and other biological sciences [13]	2,172	1.9	105	236	1,831	160	.1	28	22	110	1,096	300	796
Business and Commerce													
Total	*4,840*	*4.2*	*292*	*2,029*	*2,519*	*2,585*	*2.0*	*871*	*1,396*	*318*	*3,391*	*1,085*	*2,306*
Accounting, auditing, and taxation	1,085	.9	80	584	421	652	.5	232	375	45	773	261	512
Finance, investments, and law [14]	712	.6	47	258	407	362	.3	138	170	54	518	165	353
Secretarial studies	307	.3	16	203	88	93	.1	40	50	3	191	74	117
Marketing, retailing, wholesaling, and advertising	698	.6	39	263	396	283	.3	117	137	29	485	144	341
Personnel management and industrial relations	725	.6	25	263	437	325	.2	106	176	43	566	166	400
Business and commerce, general, and not otherwise classified	1,313	1.1	85	458	770	370	.5	238	488	144	858	275	583
Education													
Total	*10,336*	*9.0*	*1,227*	*4,215*	*4,894*	*2,967*	*1.4*	*628*	*1,594*	*745*	*6,594*	*2,000*	*4,594*
Health education, physical education, and recreation (including athletic coaches)	3,405	3.0	823	1,874	708	504	.6	259	185	60	1,760	578	1,182
Educational psychology (including special education, educational counseling, and guidance)	1,121	1.0	24	199	898	350	0	12	169	169	799	229	570
Industrial arts education and trade and industrial education [15]	304	.3	31	165	108	65	0	19	40	6	208	61	147
Elementary education, nursery and kindergarten, and early childhood education (including art education and music education)	1,246	1.1	74	506	666	511	.1	58	358	95	893	249	644
Secondary education (including junior high school) [16]	1,996	1.7	106	800	1,090	672	.1	60	454	158	1,343	393	950

See footnotes at end of table.

Table 15.—Number and percent of *full- and part-time* professional staff, October 1963, by *detailed field* and by degree; and estimated further number and percent needed for full-time replacements and additions, November 1963–October 1969, by detailed field: *Universities and technological schools*, aggregate United States—Continued

Field	Staff, October 1963										Estimated further full-time staff needed November 1963–October 1969		
	Full-time					Part-time							
	Total		Bachelor's	Master's	Doctor's	Total		Bachelor's	Master's	Doctor's	Total	Replacements	Additions
	Number	Percent				Number	Percent						
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	ACADEMIC FIELDS [9]—Continued												
Education—Continued													
Educational administration and supervision and educational finance (both elementary and secondary)	601	.5	1	83	517	139	0	3	54	82	403	137	266
Higher education (including junior college)	189	.2	9	20	160	34	0	1	2	31	155	34	121
Other [17]	1,474	1.3	159	568	747	692	.5	216	332	144	1,033	319	714
Engineering													
Total	*12,872*	*11.2*	*2,365*	*5,110*	*5,397*	*2,925*	*6.7*	*981*	*1,391*	*553*	*8,171*	*2,857*	*5,314*
Aeronautical (including aerospace)	793	.7	122	241	430	131	.3	38	43	50	508	161	347
Chemical	977	.9	64	198	715	142	.3	25	50	67	680	215	465
Civil	1,754	1.5	186	900	668	332	.8	115	177	40	962	357	605
Electrical	3,603	3.1	764	1,422	1,417	676	1.5	206	321	149	2,362	872	1,490
Mechanical	2,370	2.1	435	1,153	782	616	1.4	204	347	65	1,423	507	916
Other [18]	3,375	2.9	794	1,196	1,385	1,028	2.3	393	453	182	2,236	745	1,491

English and Journalism													
Total	*6,710*	*5.9*	*310*	*2,882*	*3,518*	*1,568*	*3.6*	*411*	*971*	*186*	*4,364*	*1,272*	*3,092*
English a.. literature (including comparative literature)	6,073	5.3	219	2,533	3,321	1,360	3.1	318	972	170	3,989	1,160	2,829
Journalism	637	.6	91	349	197	208	.5	93	99	16	375	112	263
Fine and Applied Arts													
Total	*6,697*	*5.8*	*912*	*3,530*	*2,255*	*1,712*	*3.9*	*826*	*722*	*164*	*4,083*	*1,294*	*2,789*
Art, general	1,483	1.3	326	901	256	417	1.0	228	162	27	1,009	285	724
Music (including sacred music)	2,407	2.1	350	1,366	691	677	1.5	377	255	45	1,357	466	891
Speech and dramatic arts (including speech correction)	2,007	1.8	108	942	957	386	.9	104	223	59	1,191	358	833
Other [19]	800	.7	128	321	351	232	.5	117	82	33	526	185	341
Foreign Languages, Linguistics, and Literature													
Total	*4,609*	*4.0*	*241*	*1,389*	*2,979*	*1,088*	*2.5*	*293*	*550*	*245*	*3,106*	*846*	*2,260*
Latin, Greek, and Hebrew	513	.4	13	108	392	77	.2	13	34	30	258	82	176
French (including philology and literature)	1,197	1.0	65	424	701	279	.6	69	170	40	825	240	585
Spanish (including philology and literature)	993	.9	45	329	619	298	.7	93	150	55	733	196	537
Germanic languages (including philology and literature)	978	.9	47	295	636	213	.5	74	96	43	632	170	462
Russian and other Slavic languages (including philology and literature)	400	.3	41	131	228	101	.2	21	54	26	304	65	239
Other [20]	528	.5	30	102	396	120	.3	23	46	51	354	93	261
Forestry													
Total	*521*	*.5*	*35*	*213*	*273*	*26*	*.1*	*9*	*11*	*6*	*317*	*99*	*218*
Geography													
Total	*575*	*.5*	*13*	*140*	*422*	*108*	*.2*	*26*	*47*	*35*	*432*	*106*	*326*
Health Professions [21]													
Total	*15,647*	*13.7*	*1,305*	*2,605*	*11,737*	*19,247*	*43.9*	*1,058*	*609*	*1,580*	*87,558*	*3,008*	*5,555*
Medical and dental technologies and medical therapies [22]	280	.2	86	128	66	110	.3	50	26	34	176	60	116

See footnotes at end of table.

Table 15.—Number and percent of *full- and part-time* professional staff, October 1963, by *detailed field* and by degree; and estimated further number and percent needed for full-time replacements and additions, November 1963–October 1969, by detailed field: *Universities and technological schools*, aggregate United States—Continued

Field	Staff, October 1963										Estimated further full-time staff needed November 1963–October 1969		
	Full-time					Part-time							
	Total		Bachelor's	Master's	Doctor's	Total		Bachelor's	Master's	Doctor's	Total	Replacements	Additions
	Number	Percent				Number	Percent						
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	ACADEMIC FIELDS [9]—Continued												
Health Professions [21]—Continued													
Dentistry, D.D.S. and D.M.D. (including graduate specialities)	1,469	1.3	77	48	1,344	2,403	5.5	95	35	2,273	988	338	650
Medical specialities (including dermatology; internal medicine including allergy, cardiovascular disease, gastroenterology and pulmonary diseases; and pediatrics	3,490	3.0	135	140	3,215	5,928	13.5	311	63	5,554	1,610	538	1,072
Surgical specialities (including anesthesiology, colon and rectal surgery, general surgery, neurological surgery, obstetrics and gynecology, ophthalmology, orthopedic surgery, otolaryngology, plastic surgery, thoracic surgery, and urology)	2,625	2.3	105	111	2,409	5,528	12.6	168	36	5,324	1,313	468	845
Psychiatry and neurology	1,689	1.5	67	149	1,473	2,010	4.6	49	75	1,886	736	275	461

Other specialities (including administrative medicine, physical medicine and rehabilitation, preventive medicine, and radiology)	1,865	1.6	211	171	1,483	2,065	4.7	130	47	1,888	1,004	335	669
Nursing [23]	1,871	1.6	393	1,351	127	231	.5	67	133	31	1,216	468	748
Pharmacy	710	.6	86	136	488	172	.4	54	69	49	451	158	293
Public health	686	.6	34	163	489	408	.9	44	57	307	379	109	270
Veterinary medicine, D.V.M. (including clinical veterinary medical sciences)	798	.7	88	152	558	168	.4	42	26	100	563	194	369
Podiatry, optometry, osteopathy, hospital administration, and other health professions)	164	.1	23	56	85	224	.5	48	42	134	122	60	62
Home Economics [24]													
Total	*1,575*	*1.4*	*209*	*935*	*431*	*267*	*.6*	*105*	*125*	*37*	*1,008*	*424*	*584*
Law													
Total	*1,352*	*1.2*	*435*	*468*	*449*	*578*	*1.3*	*370*	*115*	*92*	*775*	*266*	*509*
Library Science													
Total	*302*	*.3*	*33*	*172*	*97*	*110*	*.3*	*23*	*75*	*12*	*225*	*73*	*152*
Mathematical Subjects													
Total	*4,919*	*4.3*	*324*	*1,609*	*2,986*	*1,747*	*4.0*	*537*	*899*	*311*	*3,719*	*1,067*	*2,652*
Mathematics	4,517	3.9	300	1,530	2,687	1,610	3.7	516	831	263	3,414	995	2,419
Statistics (including actuarial science)	402	.4	24	79	299	137	.3	21	68	48	305	72	233
Philosophy (*Includes scholostic philosophy*)													
Total	*1,243*	*1.1*	*41*	*238*	*964*	*183*	*.4*	*29*	*94*	*60*	*732*	*222*	*510*
Physical Sciences													
Total	*10,586*	*9.2*	*952*	*1,550*	*8,084*	*2,005*	*4.6*	*763*	*628*	*614*	*6,868*	*1,955*	*4,913*
Chemistry [25]	3,931	3.4	214	414	3,303	1,045	2.4	548	254	243	2,463	711	1,752
Physics [26]	3,967	3.5	423	651	2,893	689	1.6	176	272	241	2,706	773	1,933

See footnotes at end of table.

Table 15.—Number and percent of *full- and part-time* professional staff, October 1963, by *detailed field* and by degree; and estimated further number and percent needed for full-time replacements and additions, November 1963–October 1969, by detailed field: *Universities and technological schools*, aggregate United States—Continued

Field	Staff, October 1963										Estimated further full-time staff needed November 1963–October 1969		
	Full-time					Part-time							
	Total		Bach-elor's	Mas-ter's	Doc-tor's	Total		Bach-elor's	Mas-ter's	Doc-tor's	Total	Re-place-ments	Addi-tions
	Num-ber	Per-cent				Num-ber	Per-cent						
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	ACADEMIC FIELDS [9]—Continued												
Physical Sciences—Continued													
Geology	936	.8	19	115	802	122	.3	32	42	48	546	167	379
Geophysics, oceanography, and other earth sciences	598	.5	65	120	413	52	.1	3	15	34	416	93	323
Astronomy, metallurgy, and other physical sciences	1,154	1.0	231	250	673	97	.2	4	45	48	737	211	526
Psychology													
Total	*2,571*	*2.2*	*47*	*276*	*2,248*	*863*	*2.0*	*126*	*260*	*477*	*1,731*	*456*	*1,275*
Clinical; psychological counseling (including guidance and rehabilitation)[27]	645	.6	7	50	588	258	.6	40	56	162	443	126	317
Social (including personality)	389	.3	6	44	339	112	.3	21	29	62	264	64	200
Experimental (including physiological and comparative)	811	.7	12	73	726	137	.3	25	35	77	416	125	291
All other	726	.6	22	109	595	356	.8	40	140	176	608	141	467

Religion **(*Includes religious education, Bible, and theology*)**													
Total	*745*	*.7*	*39*	*241*	*465*	*179*	*.4*	*25*	*80*	*74*	*406*	*176*	*230*
Social Sciences													
Total	*9,908*	*8.6*	*345*	*2,474*	*7,089*	*2,457*	*5.6*	*375*	*1,120*	*962*	*6,503*	*1,847*	*4,656*
Basic:													
Anthropology	529	.5	25	81	423	90	.2	17	24	49	412	92	320
Economics [28]	2,031	1.8	82	464	1,485	615	1.4	114	267	234	1,288	371	917
HISTORY—													
European	939	.8	14	178	747	154	.4	19	77	58	596	171	425
United States	1,019	.9	23	190	806	196	.4	23	119	54	590	172	418
All other	671	.6	10	128	533	102	.2	7	52	43	486	114	372
International relations, political science, and government	1,676	1.5	39	322	1,315	395	.9	62	133	200	1,084	333	751
Sociology	1,349	1.2	36	268	1,045	331	.8	56	148	127	979	253	726
American civilization, area and regional studies, and all other basic social sciences [29]	379	.3	17	109	253	99	.2	9	29	61	352	81	271
Applied:													
Public administration	233	.2	33	68	132	117	.3	40	49	28	171	55	116
Social work (including social administration)	939	.8	46	607	286	330	.8	21	213	96	465	169	296
Foreign service programs and all other applied social sciences [30]	143	.1	20	59	64	28	.1	7	9	12	80	36	44
Trade and Industrial Training [31]													
Total	*163*	*.1*	*65*	*62*	*36*	*50*	*.1*	*34*	*15*	*1*	*94*	*34*	*60*
Broad General Curricula													
Total	*2*	*0*	*0*	*0*	*2*	*1*	*0*	*0*	*1*	*0*	*1*	*0*	*1*
General Programs in:													
Humanities	0	0	0	0	0	0	0	0	0	0	0	0	0
Biological sciences	0	0	0	0	0	0	0	0	0	0	0	0	0
Physical sciences	2	0	0	0	2	1	0	0	1	0	1	0	1
Social sciences	0	0	0	0	0	0	0	0	0	0	0	0	0
All Other Fields													
Total	*58*	*.1*	*24*	*10*	*24*	*54*	*.1*	*32*	*10*	*12*	*128*	*18*	*110*

See footnotes at end of table.

Table 15.—Number and percent of *full- and part-time* professional staff, October 1963, by *detailed field* and by degree; and estimated further number and percent needed for full-time replacements and additions, November 1963–October 1969, by detailed field: *Universities and technological schools*, aggregate United States—Continued

Field	Staff, October 1963										Estimated further full-time staff needed November 1963–October 1969		
	Full-time					Part-time							
	Total		Bachelor's	Master's	Doctor's	Total		Bachelor's	Master's	Doctor's	Total	Replacements	Additions
	Number	Percent				Number	Percent						
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	TECHNICAL AND SEMIPROFESSIONAL FIELDS [31]												
Total	**1,368**	**100.0**	**519**	**521**	**328**	**1,274**	**100.0**	**612**	**533**	**129**	**1,252**	**262**	**990**
Engineering-related Technologies													
Total	*501*	*36.6*	*218*	*188*	*95*	*713*	*56.0*	*349*	*289*	*75*	*610*	*118*	*492*
Aeronautical (aircraft design and maintenance, airport operation, etc.)	70	5.1	42	27	1	28	2.2	13	13	2	46	17	29
Chemical (chemical processes, leather, paper, plastics, rubber, etc.)	32	2.3	6	11	15	32	2.5	14	12	6	42	6	36
Civil (architechtural, drafting and design, building and construction, structural, etc.)	50	3.7	28	17	5	100	7.8	50	68	30	75	9	66
Electrical (electrical construction and wiring, electronics, instrumentation, radio and television, etc.)	128	9.4	60	48	20	173	13.6	116	56	1	167	28	139
General engineering (including engineering aide programs)	27	1.8	12	15	0	96	7.5	32	55	9	78	15	63

Industrial (production management, quality control, technical sales, etc.)	17	1.2	3	8	6	50	3.9	35	14	1	33	3	30
Mechanical (air conditioning, automotive, diesel, heating, horology, mechanical drafting and machine design, refrigeration, tool and die design, etc.)	52	3.8	38	22	2	92	7.2	53	38	1	81	10	71
Other (metallurigical, naval and marine, nuclear and atomic, petroleum, welding, etc.)	125	9.1	39	40	46	142	11.1	18	71	53	88	30	58
Nonengineering-related Fields													
Total	*867*	*63.4*	*301*	*333*	*233*	*661*	*44.0*	*263*	*244*	*54*	*642*	*144*	*498*
Agriculture and forestry (animal science, horticulture and floriculture, industrial agriculture, etc.)	405	29.6	86	179	140	0	0	0	0	0	245	46	199
Applied, fine, and graphic arts (music, commercial art and advertising, fashion design, interior decorating, photography, printing, radio and television broadcasting, etc.)	158	4.2	30	23	5	62	4.9	35	25	2	53	13	40
Automatic data processing	52	3.8	12	11	29	12	.9	7	5	0	45	10	35
Business and commerce (accounting, management, secretarial, technical office assistants, real estate, insurance, purchasing, selling, industrial or labor relations, etc.)	36	2.6	6	27	3	215	16.9	109	106	0	44	8	36
Health service (dental and medical technicians, dental and medical assistants, practical nursing, x-ray technicians, etc.)	229	16.7	136	44	49	76	6.0	16	12	48	148	55	93
Home economics	6	.4	3	3	0	2	.2	1	1	0	4	0	4
Other	81	5.9	28	46	7	194	15.2	95	95	4	103	12	91

See footnotes on next page.

FOOTNOTES TO TABLE 15

[1] Institutions were instructed to report *only* professional staff in positions *normally requiring* a baccalaureate or higher degree.

[2] Includes registrars for professional schools, separate colleges, and branches.

[3] Does NOT include deans of separate colleges, who were reported in their academic fields.

[4] Head librarian and all professional librarians.

[5] Vice-president for student affairs, dean of students, etc.

[6] Includes deans of men, deans of women, and their assistants.

[7] Includes registered nurses.

[8] Food service, housing, bookstore, student union, etc.

[9] Institutions were instructed to report *only* professional instructional and research staff for those fields in which courses are *normally creditable* toward a baccalaureate or higher degree in either the local institution or by transfer to another institution.

[10] Does NOT include agricultural education, forestry, botany; entomology, genetics, etc; plant pathology and physiology; home economics and home economics education; or landscape architecture.

[11] Does NOT include plant pathology.

[12] Does NOT include plant physiology.

[13] Does NOT include general programs in biological sciences.

[14] Does NOT include economics.

[15] Does NOT include trade and industrial training.

[16] Includes agricultural, art, business and commercial, distributive, home economics, and music education.

[17] Includes adult, audiovisual, nursing education, etc.

[18] Does NOT include agricultural and architectural engineering.

[19] Does NOT include general programs in humanities.

[20] Does NOT include area studies.

[21] Does NOT include "basis sciences" of the health professions.

[22] Does NOT include programs not creditable toward a baccalaureate degree.

[23] Does NOT include nursing education and programs in practical nursing.

[24] Does NOT include home economics education.

[25] Does NOT include biochemistry.

[26] Does NOT include biophysics.

[27] Does NOT include educational counseling and guidance.

[28] Does NOT include agricultural economics.

[29] Does NOT include general programs in social sciences.

[30] Does NOT include agricultural economics and industrial relations.

[31] Does NOT include industrial arts education and trade and industrial education.

[32] Institutions were instructed to report *only* professional instructional and research staff for those fields in which courses are NOT normally creditable toward a baccalaureate or higher degree in either the local institution or by transfer to another institution; and NOT to include *adult education* and *craftsman training*.

Table 16.—Number and percent of *full-time* professional staff, October 1963, needed for *full-time* replacements and and additions, November 1963—aggregate United States

Field	Staff, October 1963				
	Total		Number, by degree		
	Number	Percent	Bachelor's	Master's	Doctor's
1	2	3	4	5	6
Total, all fields	**98,903**	**100.0**	**14,596**	**50,201**	**34,106**
Administrative					
Total	*21,954*	*22.2*	*9,473*	*8,790*	*3,691*
General	6,013	6.1	2,580	2,243	1,190
Academic affairs	5,787	5.9	1,163	3,325	1,299
Student services	5,447	5.5	2,177	2,174	1,096
Business affairs	4,707	4.8	3,553	1,048	106
Academic					
Total	*76,532*	*77.4*	*4,983*	*41,145*	*30,404*
Agriculture and forestry	576	.6	13	342	221
Biological sciences	4,822	4.9	138	1,804	2,880
Business and commerce	2,918	3.0	343	1,983	592
Education	15,832	16.0	1,483	9,312	5,037
Engineering (including architecture)	1,020	1.0	159	569	292
English and journalism	7,934	8.0	448	4,399	3,087
Fine and applied arts	8,481	8.6	708	6,152	1,621
Foreign languages	5,864	5.9	418	2,858	2,588
Geography	836	.8	2	503	331
Health professions	1,072	1.1	122	815	135
Home economics	1,057	1.1	59	898	100
Law	129	.1	76	32	21
Library science	290	.3	2	259	29
Mathematical subjects	3,899	3.9	253	2,553	1,093
Philosophy	1,742	1.8	52	615	1,075
Physical sciences	5,859	5.9	226	2,231	3,402
Psychology	2,335	2.4	73	630	1,632
Religion	1,952	2.0	88	868	996
Basic social sciences	9,573	9.7	229	4,122	5,222
Applied social sciences	128	.1	2	93	33
All other	213	.2	89	107	17
Technical and Semiprofessional					
Total	*417*	.4	*140*	*266*	*11*
Engineering-related	79	.1	35	44	0
Nonengineering-related	338	.3	105	222	11

by *large field* and by degree; and estimated further number and percent October 1969, by large field, *Liberal arts colleges and teachers colleges,*

Staff, October 1963—Continued			Estimated further staff needs, November 1963–October 1969					
Percent, by degree			Total		Number		Percent	
Bachelor's	Master's	Doctor's	Number	Percent	Replacements	Additions	Replacements	Additions
7	8	9	10	11	12	13	14	15
14.8	50.8	34.5	72,063	100.0	19,195	52,868	26.6	73.4
43.2	*40.0*	*16.8*	*13,481*	*18.7*	*4,181*	*9,300*	*31.0*	*69.0*
42.9	37.3	19.8	3,504	4.9	1,179	2,325	33.6	66.4
20.1	57.5	22.4	3,753	5.2	1,068	2,685	28.5	71.5
40.0	39.9	20.1	3,554	4.9	1,174	2,380	33.0	67.0
75.5	22.3	2.2	2,706	3.7	760	1,910	28.5	71.5
6.5	*53.8*	*39.7*	*58,259*	*80.8*	*14,996*	*43,263*	*25.7*	*74.3*
2.2	59.4	38.4	160	.2	48	112	30.0	70.0
2.9	37.4	59.7	4,102	5.7	859	3,243	20.9	79.1
11.7	68.0	20.3	2,261	3.1	474	1,787	21.0	79.0
9.4	58.8	31.8	10,716	14.9	2,806	7,910	26.2	73.8
15.6	55.8	28.6	483	.7	157	326	32.5	67.5
5.7	55.4	38.9	6,058	8.4	1,797	4,261	29.7	70.3
8.4	72.5	19.1	5,460	7.6	1,191	4,269	21.8	78.2
7.1	48.7	44.2	4,491	6.9	1,463	3,478	29.6	70.4
.2	60.2	39.6	665	.9	65	600	9.8	90.2
11.4	76.0	12.6	584	.8	198	386	33.9	66.1
5.6	85.0	9.4	638	.9	263	375	41.2	58.8
58.9	24.8	16.3	87	.1	11	76	12.6	87.4
.7	89.3	10.0	424	.6	78	346	18.4	81.6
6.5	65.5	28.0	3,159	4.4	823	2,336	26.1	73.9
3.0	35.3	61.7	1,448	2.0	431	1,017	29.8	70.2
3.8	38.1	58.1	4,579	6.4	1,052	3,527	23.0	77.0
3.1	27.0	69.9	2,260	3.1	472	1,788	20.9	79.1
4.5	44.5	51.0	1,219	1.7	515	704	42.2	57.8
2.4	43.1	54.5	8,412	11.7	2,173	6,239	25.8	74.2
1.6	72.6	25.8	486	.7	116	370	23.9	76.1
41.8	50.2	8.0	117	.2	4	113	3.4	96.6
33.6	*63.8*	*2.6*	*323*	*.4*	*18*	*305*	*5.6*	*94.4*
44.3	55.7	0	85	.1	13	72	15.3	85.6
31.1	65.7	3.2	238	.3	5	233	2.1	97.9

Table 17.—Number and percent of *part-time* professional staff, by *large field*
arts colleges and teachers colleges,

Field	Part-time staff	
	Total	
	Number	Percent
1	2	3
Total, all fields	**21,700**	**100.0**
Administrative		
Total	*2,241*	*10.3*
General	391	1.8
Academic affairs	438	2.0
Student services	1.228	5.7
Business affairs	184	.9
Academic		
Total	*19,217*	*88.6*
Agriculture and forestry	23	.1
Biological sciences	807	3.7
Business and commerce	1,628	7.5
Education	4,071	18.8
Engineering (including architecture)	416	1.9
English and journalism	1,723	7.9
Fine and applied arts	2,504	11.5
Foreign languages	1,353	6.2
Geography	188	.9
Health professions	210	1.0
Home economics	204	.9
Law	204	.9
Library science	345	1.6
Mathematical subjects	866	4.0
Philosophy	442	2.0
Physical sciences	784	3.6
Psychology	903	4.2
Religion	735	3.4
Basic social sciences	1,702	7.9
Applied social sciences	81	.4
All other	28	.1
Technical and Semiprofessional		
Total	*242*	*1.1*
Engineering-related	39	.2
Nonengineering-related	203	.9

and by degree; total, and part-time as percent of total, by large field: *Liberal* aggregate United States, October 1963

Part-time staff—Continued						Total staff	Part-time as percent of total
Number by degree			Percent by degree				
Bachelor's	Master's	Doctor's	Bachelor's	Master's	Doctor's		
4	5	6	7	8	9	10	11
5,757	11,299	4,644	26.5	52.1	21.4	120,603	18.0
821	*665*	*755*	*36.6*	*29.7*	*33.7*	*24,195*	*9.3*
178	145	68	45.5	37.1	17.4	6,404	6.1
281	109	48	64.1	24.9	11.0	6,225	7.0
233	377	618	19.0	30.7	50.3	6,675	18.4
129	34	21	70.1	18.5	11.4	4,891	3.8
4,891	*10,443*	*3,883*	*25.5*	*54.3*	*20.2*	*5,749*	*20.1*
----------	22	1	----------	95.7	4.3	599	3.8
260	230	317	32.2	28.5	39.3	5,629	14.3
627	932	69	38.5	57.3	4.2	4,546	35.8
823	2,409	839	20.2	59.2	20.6	19,903	20.5
131	255	30	31.5	61.3	7.2	1,436	29.0
475	1,056	192	27.6	61.3	11.1	9,657	17.8
920	1,464	120	36.7	58.5	4.8	10,985	22.8
441	674	238	32.6	49.8	17.6	7,217	18.7
22	97	69	11.7	51.6	36.7	1,024	18.4
114	26	70	54.3	12.4	33.3	1,282	16.4
86	114	4	42.1	55.9	2.0	1,261	16.2
172	10	22	84.3	4.9	10.8	333	61.3
79	264	2	22.9	76.5	.6	635	54.3
177	621	68	20.4	71.7	7.9	4,765	18.2
38	164	240	8.6	37.1	54.3	2,184	20.2
210	325	249	26.8	41.4	31.8	6,643	11.8
50	280	573	5.5	31.0	63.5	3,238	27.9
54	399	282	7.3	54.3	38.4	2,687	27.4
172	1,040	490	10.1	61.1	28.8	11,275	15.1
26	47	8	32.1	58.0	9.9	209	38.8
14	14	----------	50.0	50.0	----------	241	11.6
45	*191*	*6*	*18.6*	*78.9*	*2.5*	*659*	*36.7*
----------	39	----------	----------	100.0	----------	118	33.1
45	152	6	22.1	74.9	3.0	541	37.5

Table 18.—Number and percent of *full- and part-time* professional staff, October 1963, by *detailed field* and by degree; and estimated further number and percent needed for full-time replacements and additions, November 1963–October 1969, by detalied field: *Liberal arts colleges and teachers colleges*, aggregate United States

Field	Staff, October 1963										Estimated further full-time staff needed November 1963–October 1969		
	Full-time					Part-time							
	Total		Bachelor's	Master's	Doctor's	Total		Bachelor's	Master's	Doctor's	Total	Replacements	Additions
	Number	Percent				Number	Percent						
1	2	3	4	5	6	7	8	9	10	11	12	13	14
						SUMMARY							
Grand total, all fields	98,903	100.0	14,596	50,201	34,106	21,700	100.0	5,757	11,299	4,644	72,063	19,195	52,868
Total, administrative	21,954	22.2	9,473	8,790	3,691	2,241	10.3	821	665	775	13,481	4,181	9,300
Total, academic	76,532	77.4	4,983	41,145	30,404	19,217	88.6	4,891	10,443	3,883	58,259	14,996	43,263
Total, technical and semiprofessional	417	.4	140	266	11	242	1.1	45	191	6	323	18	305
						ADMINISTRATIVE FIELDS [1]							
Total	21,954	100.0	9,473	8,790	3,691	2,241	100.0	821	665	755	13,481	4,181	9,300
General													
Total	*6,013*	*27.4*	*2,580*	*2,243*	*1,190*	*391*	*17.4*	*178*	*145*	*68*	*3,504*	*1,179*	*2,325*
Chief administrative officer	914	4.2	31	212	671	11	.5	0	0	11	296	259	37
Officers for public relations, planning and development, alumni, etc	1,941	8.8	1,045	779	117	150	6.7	69	56	25	1,183	344	839

Admissions and recruitment officers	1,219	5.6	654	463	102	114	5.1	86	13	13	984	284	700
Registrars and assistant registrars [2]	1,396	6.4	596	636	164	78	3.5	19	55	4	684	199	485
Other	543	2.5	254	153	136	38	1.7	4	21	15	357	93	264
Academic Affairs													
Total	*5,787*	*26.4*	*1,163*	*3,325*	*1,299*	*438*	*19.5*	*281*	*109*	*48*	*3,753*	*1,068*	*2,685*
Chief academic officer, academic vice-president, dean of faculties, academic dean, dean of instruction, etc [3]	1,004	4.6	11	216	777	28	1.2	0	13	15	435	215	220
Graduate dean and assistant graduate deans	290	1.3	0	47	243	33	1.5	0	11	33	328	63	265
Librarians [4]	4,041	18.4	1,056	2,842	143	350	15.6	92	12	350	2,572	720	1,852
Other	452	2.1	96	220	136	27	1.2	133	4	10	418	70	348
Student Services													
Total	*5,447*	*24.8*	*2,177*	*2,174*	*1,096*	*1,228*	*54.8*	*283*	*377*	*618*	*3,554*	*1,174*	*2,380*
Chief student services officer [5]	723	3.3	43	422	258	10	.4	0	10	0	328	167	161
Assistant student services officer [6]	1,440	6.6	308	968	164	117	5.2	14	101	2	870	319	551
Counseling, advisory, and testing personnel	1,009	4.6	305	415	289	348	15.2	31	197	120	1,031	182	849
Health services personnel [7]	1,666	7.6	1,186	156	324	707	31.5	175	46	486	914	396	518
Other	609	2.8	335	213	61	46	2.1	13	23	10	411	110	301
Business Affairs													
Total	*4,707*	*21.4*	*3,553*	*1,048*	*106*	*184*	*8.2*	*129*	*34*	*21*	*2,670*	*760*	*1,910*
Chief business officer	885	4.0	427	422	36	22	1.0	11	11	0	263	159	104
Accounting and purchasing officers	00	4.6	790	188	22	43	1.9	21	22	0	449	87	362
Physical plant management staff (including engineers)	673	3.1	591	82	0	21	.9	21	0	0	471	99	372
Auxiliary services management staff [8]	1,629	7.4	1,377	248	4	76	3.4	65	1	10	1,186	320	866
Other	520	2.4	368	108	44	22	1.0	11	0	11	301	95	206
	ACADEMIC FIELDS [9]												
Total	76,532	100.0	4,983	41,145	30,404	19,217	100.0	4,891	10,443	3,883	58,259	14,996	43,263
Agriculture *(Includes agricultural economics and agricultural engineering)* [10]													
Total	*563*	*.7*	*13*	*332*	*218*	*12*	*.1*	*0*	*11*	*1*	*157*	*46*	*111*

See footnotes at end of table.

Table 18.—Number and percent of *full- and part-time* professional staff, October 1963, by *detailed field* and by degree; and estimated further number and percent needed for full-time replacements and additions, November 1963–October 1969, by detailed field: *Liberal arts colleges and teachers colleges*, aggregate United States—Continued

Field	Staff, October 1963										Estimated further full-time staff needed November 1963–October 1969		
	Full-time					Part-time							
	Total		Bach-elor's	Mas-ter's	Doc-tor's	Total		Bach-elor's	Mas-ter's	Doc-tor's	Total	Re-place-ments	Addi-tions
	Num-ber	Per-cent				Num-ber	Per-cent						
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	ACADEMIC FIELDS [1]—Continued												
Architecture **(*Includes architectural engineering*)**													
Total	*23*	*0*	*13*	*10*	*0*	*0*	*0*	*0*	*0*	*0*	*10*	*0*	*10*
Biological Sciences **(*Includes all "basic sciences" of the health professions*)**													
Total	*4,822*	*6.3*	*138*	*1,804*	*2,880*	*807*	*4.2*	*260*	*230*	*317*	*4,102*	*859*	*3,243*
General biology	2,022	2.6	106	1,000	916	432	2.2	179	123	130	1,475	344	1,131
General botany	514	.7	4	156	354	72	.4	20	3	49	442	114	328
General zoology	743	1.0	2	285	456	58	.3	32	14	12	559	126	433
Anatomy and histology	243	.3	11	80	152	41	.2	4	12	25	211	44	167
Bactriology, microbiology, mycology, parasitology, and virology	380	.5	2	79	299	67	.3	5	39	23	314	31	283

Biochemistry	124	.2	10	0	114	27	.1	2	12	13	184	22	162
Pathology [11]	22	0	0	4	18	13	.1	2	0	11	49	0	49
Pharmacology	23	0	0	0	23	13	.1	2	0	11	18	2	16
Physiology [12]	246	.3	1	49	196	38	.2	12	16	10	296	59	237
Biophysics, cytology, ecology, embryology, entomology, genetics, plant pathology, plant physiology, and other biological sciences [13]	505	.7	2	151	352	46	.2	2	11	33	554	117	437
Business and Commerce													
Total	*2,918*	*3.8*	*343*	*1,983*	*592*	*1,628*	*8.5*	*627*	*932*	*69*	*2,261*	*474*	*1,787*
Accounting, auditing, and taxation	847	1.1	94	623	130	480	2.5	169	298	13	741	224	517
Finance, investments, and law [14]	238	.3	41	119	78	208	1.1	85	99	24	241	57	184
Secretarial studies	648	.8	107	488	53	167	1.0	61	104	2	289	54	235
Marketing, retailing, wholesaling, and advertising	337	.4	26	228	83	72	.4	17	52	3	297	38	259
Personnel management and industrial relations	251	.3	21	162	68	78	.4	18	56	4	264	26	238
Business and commerce, general, and not otherwise classified	597	.8	54	363	180	623	3.2	277	323	23	429	75	354
Education													
Total	*15,832*	*20.7*	*1,483*	*9,312*	*5,037*	*4,071*	*21.2*	*823*	*2,409*	*839*	*10,716*	*2,806*	*7,910*
Health education, physical education, and recreation (including athletic coaches)	5,461	7.1	1,206	3,747	638	669	3.5	445	156	68	3,115	914	2,201
Educational psychology (including special education, educational counseling, and guidance)	1,404	1.8	12	442	970	680	3.5	30	379	271	1,288	307	981
Industrial arts education and trade and industrial education [15]	879	1.1	38	588	253	194	1.0	123	61	10	667	124	543
Elementary education, nursery and kindergarten, and early childhood education (including art education and music education)	3,675	4.8	208	2,619	848	995	5.2	71	833	91	2,282	786	1,496
Secondary education (including junior high school) [16]	3,085	4.0	98	1,419	1,568	677	3.5	98	446	133	2,179	490	1,689

See footnotes at end of table.

Table 18.—Number and percent of *full- and part-time* professional staff, October 1963, by *detailed field* and by degree; and estimated further number and percent needed for full-time replacements and additions, November 1963–October 1969, by detailed field: *Liberal arts colleges and teachers colleges*, aggregate United States—Continued

Field	Staff, October 1963										Estimated further full-time staff needed November 1963–October 1969		
	Full-time					Part-time							
	Total		Bachelor's	Master's	Doctor's	Total		Bachelor's	Master's	Doctor's	Total	Replacements	Additions
	Number	Percent				Number	Percent						
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	ACADEMIC FIELDS [9]—Continued												
Education—Continued													
Educational administration and supervision and educational finance (both elementary and secondary)	515	.7	2	142	371	502	2.6	33	240	229	428	109	319
Higher education (including junior college)	96	.1	0	5	91	36	.2	0	25	11	59	9	50
Other [17]	717	.9	99	310	248	318	1.7	23	269	26	698	67	631
Engineering													
Total	*997*	*1.3*	*146*	*559*	*292*	*416*	*2.2*	*131*	*255*	*30*	*473*	*157*	*316*
Aeronautical (including aerospace)	24	0	2	7	15	11	.1	3	8	0	6	2	4
Chemical	14	0	0	4	10	3	0	1	2	0	8	5	3
Civil	381	.5	56	241	84	149	.8	47	100	2	181	57	124
Electrical	262	.3	42	149	71	92	.5	34	46	12	155	62	93
Mechanical	235	.3	41	106	88	135	.7	39	80	16	108	27	81
Other [18]	81	.1	5	52	24	26	.1	7	19	0	15	4	11

English and Journalism													
Total	*7,934*	*10.4*	*448*	*4,399*	*3,087*	*1,723*	*9.0*	*475*	*1,056*	*192*	*6,058*	*1,797*	*4,261*
English and literature (including comparative literature)	7,747	10.1	413	4,274	3,060	1,536	8.0	371	973	192	5,795	1,788	4,007
Journalism	187	.2	35	125	27	187	1.0	104	83	0	263	9	254
Fine and Applied Arts													
Total	*8,481*	*11.1*	*708*	*6,152*	*1,621*	*2,504*	*13.0*	*920*	*1,464*	*120*	*5,460*	*1,191*	*4,269*
Art, general	2,189	2.9	232	1,642	315	539	2.8	172	347	20	1,529	315	1,214
Music (including sacred music)	3,714	4.9	233	2,827	654	1,453	7.6	630	768	55	1,942	476	1,466
Speech and dramatic arts (including speech correction)	2,355	3.1	190	1,558	607	474	2.5	85	347	42	1,719	389	1,330
Other [19]	223	.3	53	125	45	38	.2	33	2	3	270	11	259
Foreign Languages, Linguistics, and Literature													
Total	*5,864*	*7.7*	*418*	*2,858*	*2,588*	*1,353*	*7.0*	*441*	*674*	*238*	*4,941*	*1,463*	*3,478*
Latin, Greek, and Hebrew	804	1.1	55	309	440	170	.9	18	85	67	404	170	234
French (including philology and literature)	2,158	2.8	150	1,157	851	391	2.0	101	239	51	1,549	516	1,033
Spanish (including philology and literature)	1,491	1.9	99	817	575	323	1.7	131	162	30	1,261	356	905
Germanic languages (including philology and literature)	1,091	1.4	58	442	591	259	1.3	109	100	50	1,069	309	760
Russian and other Slavic languages (including philology and literature)	193	.3	36	73	84	167	.9	67	65	35	402	92	310
Other [20]	127	.2	20	60	47	43	.2	15	23	5	256	20	236
Forestry													
Total	*13*	*0*	*0*	*10*	*3*	*11*	*.1*	*0*	*11*	*0*	*3*	*2*	*1*
Geography													
Total	*836*	*1.1*	*2*	*503*	*331*	*188*	*1.0*	*22*	*97*	*69*	*665*	*65*	*600*
Health Professions [21]													
Total	*1,072*	*1.4*	*122*	*815*	*135*	*210*	*1.1*	*114*	*26*	*70*	*584*	*198*	*386*
Medical and dental technologies and medical therapies [22]	24	0	2	22	0	137	.7	91	4	42	76	2	74

See footnotes at end of table.

Table 18.—Number and percent of *full- and part-time* professional staff, October 1963, by *detailed field* and by degree; and estimated further number and percent needed for full-time replacements and additions, November 1963–October 1969, by detailed field: *Liberal arts colleges and teachers colleges*, aggregate United States—Continued

Field	Staff, October 1963										Estimated further full-time staff needed November 1963–October 1969		
	Full-time					Part-time							
	Total		Bachelor's	Master's	Doctor's	Total		Bachelor's	Master's	Doctor's	Total	Replacements	Additions
	Number	Percent				Number	Percent						
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	ACADEMIC FIELDS [1]—Continued												
Health Professions [11]—Continued													
Dentistry, D.D.S. and D.M.D. (including graduate specialities	10	0	0	0	10	2	0	0	0	2	0	0	0
Medical specialties (including dermatology; internal medicine including allergy, cardiovascular disease, gastroenterology and pulmonary diseases; and pediatrics	10	0	0	0	10	2	0	0	0	2	0	0	0
Surgical specialties (including anesthesiology, colon and rectal surgery, general surgery, neurological surgery, obstetrics and gynecology, ophthalmology, orthopedic surgery, otolaryngology, plastic surgery, thoracic surgery, and urology)	39	.1	0	0	39	0	0	0	0	0	35	11	24
Psychiatry and neurology	15	0	0	0	15	3	0	0	0	3	6	6	0

Other specialities (including administrative medicine, physical medicine and rehabilitation, preventive medicine, and radiology)	44	.1	0	0	44	0	0	0	0	0	3	3	0
Nursing [23]	915	1.1	117	785	13	53	.3	22	21	10	442	173	269
Pharmacy	14	0	3	6	5	0	0	0	0	0	5	2	3
Public health	7	0	0	0	7	15	.1	1	1	13	17	1	16
Veterinary medicine, D.V.M. (including clinical veterinary medical sciences)	0	0	0	0	0	0	0	0	0	0	0	0	0
Podiatry, optometry, osteopathy, hospital administration, and other health professions)	4	0	0	2	2	0	0	0	0	0	0	0	0
Home Economics [24]													
Total	*1,057*	*1.4*	*59*	*398*	*100*	*204*	*1.1*	*86*	*114*	*4*	*638*	*263*	*375*
Law													
Total	*129*	*.2*	*76*	*32*	*21*	*204*	*7.1*	*172*	*10*	*22*	*87*	*11*	*76*
Library Science													
Total	*290*	*.4*	*2*	*259*	*29*	*345*	*1.8*	*79*	*264*	*2*	*424*	*78*	*348*
Mathematical Subjects													
Total	*3,899*	*5.1*	*253*	*2,553*	*1,093*	*866*	*4.5*	*177*	*621*	*68*	*3,159*	*823*	*2,336*
Mathematics	3,879	5.1	253	2,549	1,077	848	4.4	177	618	53	3,104	816	2,288
Statistics (including actuarial science)	20	0	0	4	16	18	.1	0	3	15	55	7	48
Philosophy *(Includes scholastic philosophy)*													
Total	*1,742*	*2.3*	*52*	*615*	*1,075*	*442*	*2.3*	*58*	*164*	*240*	*1,448*	*451*	*1,017*
Physical Sciences													
Total	*5,859*	*7.7*	*226*	*2,231*	*3,408*	*784*	*4.1*	*210*	*325*	*249*	*4,579*	*1,052*	*3,527*
Chemistry [25]	3,123	4.1	126	920	2,077	358	1.9	66	129	163	2,266	573	1,693
Physics [26]	2,034	2.7	83	908	953	254	1.3	78	117	59	1,573	387	1,186

See footnotes at end of table.

Table 18.—Number and percent of *full- and part-time* professional staff, October 1963, by *detailed field* and by degree; and estimated further number and percent needed for full-time replacements and additions, November 1963–October 1969, by detailed field: *Liberal arts colleges and teachers colleges*, aggregate United States—Continued

Field	Staff, October 1963										Estimated further full-time staff needed November 1963–October 1969		
	Full-time					Part-time							
	Total		Bachelor's	Master's	Doctor's	Total		Bachelor's	Master's	Doctor's	Total	Replacements	Additions
	Number	Percent				Number	Percent						
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	ACADEMIC FIELDS [6]—Continued												
Physical Sciences—Continued													
Geology	331	.4	3	81	247	76	.4	16	50	10	287	41	246
Geophysics, oceanography, and other earth sciences	41	.1	1	16	24	5	0	0	1	4	68	6	62
Astronomy, metallurgy, and other physical sciences	330	.4	13	216	101	91	.5	50	28	13	385	45	340
Psychology													
Total	*2,335*	*3.1*	*73*	*630*	*1,632*	*903*	*4.7*	*60*	*280*	*573*	*2,260*	*472*	*1,788*
Clinical; psychological counseling (including guidance and rehabilitation) [27]	348	.5	2	65	281	271	1.4	13	49	209	391	72	319
Social (including personality)	279	.4	4	99	176	123	.6	5	40	78	282	45	237
Experimental (including physiological and comparative)	448	.6	0	51	397	120	.6	16	22	82	529	111	418
All other	1,260	1.6	67	415	778	389	2.0	16	169	204	1,058	244	814

Religion (*Includes religious education, Bible, and theology*)													
Total	*1,952*	*2.6*	*88*	*868*	*996*	*735*	*3.8*	*54*	*399*	*232*	*1,219*	*515*	*704*
Social Sciences													
Total	*9,701*	*12.7*	*231*	*4,215*	*5,255*	*1,783*	*9.3*	*198*	*1,087*	*498*	*8,898*	*2,289*	*6,609*
Basic:													
Anthropology	219	.3	4	48	167	48	.2	6	22	20	374	18	356
Economics [28]	1,559	2.0	93	670	796	280	1.5	25	185	70	1,304	401	903
HISTORY—													
European	1,752	2.3	37	755	960	226	1.2	16	144	66	1,367	374	993
United States	1,778	2.3	0	740	1.038	1,179	.9	29	107	43	1,270	336	934
All other	812	1.1	0	415	397	131	.7	22	86	23	770	231	539
International relations, political science, and government	1,555	2.0	35	619	901	260	1.4	36	121	103	1,383	334	1,049
Sociology	1,591	2.1	55	683	853	423	2.2	21	250	152	1,577	437	1,140
American civilization, area and regional studies, and all other basic social sciences [29]	307	.4	5	192	110	155	.8	17	125	13	367	42	325
Applied:													
Public administration	49	.1	1	14	24	36	.2	21	12	3	48	3	45
Social work (including social administration)	5	.1	0	67	8	44	.2	4	35	5	110	5	105
Foreign service programs and all other applied social sciences[30]	4	0	1	2	1	1	0	1	0	0	328	108	220
Trade and Industrial Training [31]													
Total	*203*	*.3*	*89*	*107*	*7*	*17*	*.1*	*14*	*3*	*0*	*117*	*4*	*113*
Broad General Curricula													
Total	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
General Programs in:													
Humanities	0	0	0	0	0	0	0	0	0	0	0	0	0
Biological sciences	0	0	0	0	0	0	0	0	0	0	0	0	0
Physical sciences	0	0	0	0	0	0	0	0	0	0	0	0	0
Social sciences	0	0	0	0	0	0	0	0	0	0	0	0	0
All Other Fields													
Total	*10*	*0*	*0*	*0*	*10*	*11*	*.1*	*0*	*11*	*0*	*0*	*0*	*0*

See footnotes at end of table.

Table 18.—Number and percent of *full- and part-time* professional staff, October 1963, by *detailed field* and by degree; and estimated further number and percent needed for full-time replacements and additions, November 1963–October 1969, by detailed field: *Liberal arts colleges and teachers colleges*, aggregate United States—Continued

Field	Staff, October 1963										Estimated further full-time staff needed November 1963–October 1969		
	Full-time					Part-time							
	Total		Bachelor's	Master's	Doctor's	Total		Bachelor's	Master's	Doctor's	Total	Replacements	Additions
	Number	Percent				Number	Percent						
1	2	3	4	5	6	7	8	9	10	11	12	13	14
TECHNICAL AND SEMIPROFESSIONAL FIELDS [12]													
Total	417	100.0	140	266	11	242	100.0	45	191	6	323	18	305
Engineering-related Technologies													
Total	*79*	*18.9*	*35*	*44*	*0*	*39*	*16.1*	*0*	*39*	*0*	*85*	*13*	*72*
Aeronautical (aircraft design and maintenance, airport operation, etc.)	0	0	0	0	0	0	0	0	0	0	3	0	3
Chemical (chemical processes, leather, paper, plastics, rubber, etc	2	.5	0	2	0	5	2.1	0	5	0	6	2	4
Civil (architectural, drafting and design, building and construction, structural, etc.)	0	0	0	0	0	0	0	0	0	0	3	0	3
Electrical (electrical construction and wiring, electronics, instrumentation, radio and television, etc.)	30	7.2	22	8	0	11	4.5	0	11	0	30	4	26
General engineering (including engineering aide programs)	5	1.2	3	2	0	0	0	0	0	0	7	2	5

Industrial (production management, quality control, technical sales, etc.)	3	.7	0	3	0	13	5.4	0	13	0	8	2	6
Mechanical (air conditioning, automotive, diesel, heating, horology, mechanical drafting and machine design, refrigeration, tool and die design, etc.)	39	9.4	10	29	0	10	4.1	0	10	0	28	3	25
Other (metallurgical, naval and marine, nuclear and atomic, petroleum, welding, etc.)	0	0	0	0	0	0	0	0	0	0	0	0	0
Nonengineering-related Fields													
Total	*338*	*8.1*	*105*	*222*	*11*	*203*	*83.9*	*45*	*152*	*6*	*238*	*5*	*233*
Agriculture and forestry (animal science, horticulture and floriculture, industrial agriculture, etc.)	0	0	0	0	0	0	0	0	0	0	0	0	0
Applied, fine, and graphic arts (music, commercial art and advertising, fashion design, interior decorating, photography, printing, radio and television broadcasting, etc.)	171	4.1	65	106	0	49	20.2	2	47	0	97	0	97
Automatic data processing	24	5.8	8	16	0	27	11.2	0	27	0	52	4	48
Business and commerce (accounting, management, secretarial, technical office assistants, real estate, insurance, purchasing, selling, industrial or labor relations, etc.)	43	10.3	0	43	0	90	3.7	38	50	2	65	0	65
Health service (dental and medical technicians, dental and medical assistants, practical nursing, x-ray technicians, etc.)	0	0	0	0	0	0	0	0	0	0	21	0	21
Home economics	0	--------	0	0	0	0	--------	0	0	0	0	0	0
Other	100	24.0	32	57	11	37	15.3	5	28	4	3	1	2

See footnotes on next page.

FOOTNOTES TO TABLE 18

[1] Institutions were instructed to report *only* professional staff in positions *normally requiring* a baccalaureate or higher degree.

[2] Includes registrars for professional schools, separate colleges, and branches.

[3] Does NOT include deans of separate colleges, who were reported in their academic fields.

[4] Head librarian and all professional librarians.

[5] Vice-president for student affairs, dean of students, etc.

[6] Includes deans of men, deans of women, and their assistants.

[7] Includes registered nurses.

[8] Food services, housing, bookstore, student union, etc.

[9] Institutions were instructed to report *only* professional instructional and research staff for those fields in which courses are *normally creditable* toward a baccalaureate or higher degree in either the local institution or by transfer to another institution.

[10] Does NOT include agricultural education, forestry, botany; entomology, genetics, etc; plant pathology and physiology; home economics and home economics education; or landscape architecture.

[11] Does NOT include plant pathology.

[12] Does NOT include plant physiology.

[13] Does NOT include general programs in biological sciences.

[14] Does NOT include economics.

[15] Does NOT include trade and industrial training.

[16] Includes agricultural, art, business and commercial, distributive, home economics, and music education.

[17] Includes adult, audiovisual, nursing education, etc.

[18] Does NOT include agricultural and architectural engineering.

[19] Does NOT include general programs in humanities.

[20] Does NOT include area studies.

[21] Does NOT include "basis sciences" of the health professions.

[22] Does NOT include programs not creditable toward a baccalaureate degree.

[23] Does NOT include nursing education and programs in practical nursing.

[24] Does NOT include home economics education.

[25] Does NOT include biochemistry.

[26] Does NOT include biophysics.

[27] Does NOT include educational counseling and guidance.

[28] Does NOT include agricultural economics.

[29] Does NOT include general programs in social sciences.

[30] Does NOT include agricultural economics and industrial relations.

[31] Does NOT include industrial arts education and trade and industrial education.

[32] Institutions were instructed to report *only* professional instructional and research staff for those fields in which courses are NOT normally creditable toward a baccalaureate or higher degree in either the local institution or by transfer to another institution; and NOT to include *adult education* and *craftsman training*.

Table 19.—Number and percent of *full-time* professional staff, October 1963, needed for *full-time* replacements and additions, November 1963- schools, and semiprofessional schools), aggregate United States, October

Field	Staff, October 1963				
	Total		Number, by degree		
	Number	Percent	Bachelor's	Master's	Doctor's
1	2	3	4	5	6
Total, all fields	**28,719**	**100.0**	**6,381**	**19,512**	**2,826**
Administrative					
Total	*6,863*	*23.9*	*2,577*	*3,684*	*602*
General	1,863	6.5	762	811	290
Academic affairs	1,823	6.3	390	1,275	158
Student services	2,050	7.1	571	1,328	151
Business affairs	1,127	3.9	854	270	3
Academic					
Total	*17,903*	*62.3*	*2,029*	*13,744*	*2,130*
Agriculture and forestry	141	.5	18	88	36
Biological sciences	1,092	3.8	23	880	189
Business and commerce	2,745	9.6	846	1,721	178
Education	1,996	7.0	366	1,531	99
Engineering (including architecture)	307	1.1	48	258	1
English and journalism	2,874	10.0	109	2,439	326
Fine and applied arts	1,535	5.3	26	1,362	147
Foreign languages	831	2.9	36	584	211
Geography	97	.3	0	95	2
Health professions	263	.9	6	219	38
Home economics	204	.7	17	185	2
Law	4	0	1	2	1
Library science	3	0	0	3	0
Mathematical subjects	1,195	4.2	171	942	82
Philosophy	254	.9	0	173	81
Physical sciences	1,377	4.8	147	1,042	188
Psychology	567	2.0	45	380	142
Religion	214	.7	86	128	0
Basic social sciences	1,916	6.7	49	1,475	392
Applied social sciences	0	0	0	0	0
All other	288	1.0	35	237	16
Technical and Semiprofessional					
Total	*3,953*	*13.8*	*1,775*	*2,084*	*94*
Engineering-related	1,457	5.1	879	576	2
Nonengineering-related	2,496	8.7	896	1,508	92

by *large field* and by degree; and estimated further number and percent October 1969, by *large field: 2-year institutions* (junior colleges, technical 1963

Staff, October 1963—Continued			Estimated further staff needs, November 1963–October 1969					
Percent, by degree			Total		Number		Percent	
Bachelor's	Master's	Doctor's	Number	Percent	Replacements	Additions	Replacements	Additions
7	8	9	10	11	12	13	14	15
22.2	68.0	9.8	43,971	100.0	5,499	38.472	12.5	87.5
37.5	*53.7*	*8.8*	*8,705*	*19.8*	*1.274*	*7,431*	*14.6*	*85.4*
40.9	43.5	15.6	2,238	5.1	471	1,767	21.0	79.9
21.4	69.9	8.7	1,706	3.9	205	1,501	12.0	88.0
27.8	64.8	7.4	2,993	6.8	342	2,651	11.4	88.6
75.8	24.0	.2	1,768	4.0	256	1,512	14.5	85.5
11.3	*76.8*	*11.9*	*29,802*	*67.8*	*3,554*	*26,248*	*11.9*	*88.1*
12.8	62.4	24.8	52	.1	0	42	0	100.0
2.1	80.6	17.3	1,536	3.5	205	1,331	13.3	86.7
30.8	62.7	6.5	3,334	7.6	635	2,699	19.0	81.0
18.3	76.7	5.0	2,157	4.9	203	1,954	9.4	90.6
15.7	84.0	.3	522	1.2	84	438	16.1	83.9
3.8	84.9	11.3	4,859	11.0	547	4,312	11.3	88.7
1.7	88.7	9.6	3,072	7.0	311	2,761	10.1	89.9
4.3	70.3	25.4	1,960	4.5	223	1,737	11.4	88.6
0	97.9	2.1	375	.8	55	320	14.7	85.3
2.3	83.3	14.4	1,052	2.4	38	1,014	3.6	96.4
8.3	90.7	1.0	312	.7	79	233	25.3	74.7
25.0	50.0	25.0	1	0	1	0	100.0	0
0	100.0	0	46	.1	0	46	0	100.0
14.3	78.8	6.9	2,195	5.0	206	1,989	9.4	90.6
0	68.1	31.9	534	1.2	61	473	11.4	88.6
10.7	75.7	13.6	2,350	5.4	388	1,962	16.5	83.5
7.9	67.0	25.1	1,219	2.8	136	1,083	11.2	88.8
40.2	59.8	0	275	.6	43	232	15.6	84.4
2.5	77.0	20.5	3,617	8.2	312	3,305	8.6	91.4
0	0	0	44	.1	0	44	0	100.0
12.1	82.3	5.6	290	.7	27	263	9.3	90.7
44.9	*52.7*	*2.4*	*5,464*	*12.4*	*671*	*4,793*	*12.3*	*87.7*
60.3	39.6	.1	2,429	5.5	260	2,169	10.7	89.3
35.9	60.4	3.7	3,035	6.9	411	2,624	13.5	86.5

Table 20.—Number and percent of *part-time* professional staff, by *large field* *institutions* (junior colleges, technical schools, and

Field	Part-time staff	
	Total	
	Number	Percent
1	2	3
Total, all fields	**15,854**	**100.0**
Administrative		
Total	*1,467*	*9.3*
General	553	3.5
Academic affairs	199	1.3
Student services	479	3.0
Business affairs	236	1.5
Academic		
Total	*12,563*	*79.2*
Agriculture and forestry	1	0
Biological sciences	388	2.5
Business and commerce	2,202	13.9
Education	546	3.4
Engineering (including architecture)	289	1.8
English and journalism	1,471	9.3
Fine and applied arts	1,566	9.9
Foreign languages	893	5.6
Geography	46	.3
Health professions	31	.2
Home economics	79	.5
Law	4	0
Library science	43	.3
Mathematical subjects	1,228	7.7
Philosophy	223	1.4
Physical sciences	1,026	6.5
Psychology	656	4.1
Religion	206	1.3
Basic social sciences	1,591	10.0
Applied social sciences	0	0
All other	74	.5
Technical and Semiprofessional		
Total	*1,824*	*11.5*
Engineering-related	1,385	8.7
Nonengineering-related	439	2.8

and by degree; total, and part-time as percent of total, by large field: *2-year* semiprofessional schools), aggregate United States, October 1963

Part-time staff—Continued						Total staff	Part-time as percent of total
Number by degree			Percent by degree				
Bachelor's	Master's	Doctor's	Bachelor's	Master's	Doctor's		
4	5	6	7	8	9	10	11
4,431	10,093	1,330	27.9	63.7	8.4	44,573	35.6
504	*14*	*49*	*34.4*	*62.3*	*3.3*	*8,330*	*17.6*
207	346	0	37.4	62.6	0	2,416	22.9
17	182	0	8.5	91.5	0	2,022	9.8
45	385	49	9.4	80.4	10.2	2,529	18.9
235	1	0	99.6	.4	0	1,363	17.3
2,512	*8,774*	*1,277*	*20.0*	*69.8*	*10.2*	*30,466*	*41.2*
0	0	1	0	0	100.0	142	.7
18	330	40	4.6	85.1	10.3	1,480	26.2
693	1,333	176	31.5	60.5	8.0	4,947	44.5
195	333	18	35.7	61.0	3.3	2,542	21.5
56	215	18	19.4	74.4	6.2	596	48.5
248	1,054	169	16.8	71.7	11.5	4,345	33.9
571	886	109	36.4	56.6	7.0	3,101	50.5
196	624	73	21.9	69.9	8.2	1,724	51.8
18	27	1	39.1	58.7	2.2	143	32.2
4	3	24	12.9	9.7	77.4	294	10.5
34	45	0	43.0	57.0	0	283	27.9
0	3	1	0	75.0	25.0	8	50.0
43	0	0	100.0	0	0	46	93.5
185	943	100	15.1	76.8	8.1	2,423	50.7
0	144	79	0	64.6	35.4	477	46.8
112	779	135	10.9	75.9	13.2	2,403	42.7
22	514	120	3.3	78.4	18.3	1,223	53.6
43	121	42	20.9	58.7	20.4	420	49.0
54	1,388	149	3.4	87.2	9.4	3,507	45.4
0	0	0	0	0	0	0	0
20	32	22	27.0	43.3	29.7	362	20.4
1,415	*405*	*4*	*77.6*	*22.2*	*.2*	*5,777*	*31.6*
1,046	337	2	75.5	24.3	.2	2,842	48.7
369	68	2	84.0	15.5	.5	2,935	15.0

Table 21.—Number and percent of *full- and part-time* professional staff, October 1963, by *detailed field* and by degree; and estimated further number and percent needed for full-time replacements and additions, November 1963–October 1969, by detailed field: *2-year institutions* (junior colleges, technical schools, and semiprofessional schools), aggregated United States

Field	Staff, October 1963										Estimated further full-time staff needed November 1963–October 1969		
	Full-time					Part-time							
	Total		Bachelor's	Master's	Doctor's	Total		Bachelor's	Master's	Doctor's	Total	Replacements	Additions
	Number	Percent				Number	Percent						
1	2	3	4	5	6	7	8	9	10	11	12	13	14
						SUMMARY							
Grand total, all fields	28,719	100.0	6,381	19,512	2,826	15,854	100.0	4,431	10,093	1,330	43,971	5,499	38,472
Total, administrative	6,863	23.9	2,577	3,684	602	1,467	9.3	504	914	49	8,705	1,274	7,431
Total, academic	17,903	62.3	2,029	13,744	2,130	12,563	79.2	2,512	8,774	1,277	29,802	3,554	26,248
Total, technical and semiprofessional	3,953	13.8	1,775	2,084	94	1,824	11.5	1,415	405	4	5,464	671	4,793
						ADMINISTRATIVE FIELDS [1]							
Total	6,863	100.0	2,577	3,684	602	1,467	100.0	504	914	49	8,705	1,274	7,431
General													
Total	*1,863*	*62.1*	*762*	*811*	*290*	*553*	*37.7*	*207*	*346*	*0*	*2,238*	*471*	*1,767*
Chief administrative officer	606	8.8	85	352	169	156	10.6	43	113	0	191	131	60
Officers for public relations, planning and development, alumni, etc	331	4.8	129	124	78	78	5.3	78	0	0	563	85	473

Admissions and recruitment officers	379	5.5	167	192	20	188	12.8	43	145	0	708	130	578
Registrars and assistant registrars [2]	314	4.6	244	69	1	44	3.0	0	44	0	478	78	400
Other	233	3.4	137	74	22	87	5.9	43	44	0	298	47	251
Academic Affairs													
Total	*1,823*	*26.6*	*590*	*1,275*	*158*	*199*	*13.6*	*17,*	*182*	*0*	*1,706*	*205*	*1,501*
Chief academic officer, academic vice-president, dean of faculties, academic dean, dean of instruction, etc.[3]	657	9.6	66	438	153	18	1.2	0	18	0	549	91	458
Graduate dean and assistant graduate deans	72	1.0	0	72	0	18	1.2	0	18	0	17	17	0
Librarians [4]	1,000	14.6	321	677	2	163	11.1	17	146	0	941	76	865
Other	94	1.4	3	88	3	0	0	0	0	0	199	21	178
Student Services													
Total	*2,050*	*29.9*	*571*	*1,328*	*151*	*479*	*32.7*	*45*	*385*	*49*	*2,393*	*342*	*2,651*
Chief student services officer [5]	364	5.3	2	301	61	51	3.5	0	51	0	185	38	147
Assistant student services officers [6]	489	7.1	106	381	2	2	.1	0	2	0	454	100	354
Counseling, advisory, and testing personnel	704	10.3	52	565	87	187	12.7	44	142	1	1,067	158	1,509
Health services personnel [7]	441	6.4	403	37	1	108	7.4	1	59	48	559	44	515
Other	52	.8	8	44	0	131	8.9	0	131	0	128	2	126
Business Affairs													
Total	*1,127*	*16.4*	*854*	*270*	*3*	*236*	*16.1*	*235*	*1*	*0*	*1,768*	*256*	*1,512*
Chief business officer	396	5.8	254	139	3	122	8.3	122	0	0	270	98	172
Accounting and purchasing officers	185	2.7	99	86	0	0	0	0	0	0	390	1	389
Physical plant management staff (including engineers)	153	2.2	153	0	0	17	1.2	17	0	0	410	18	392
Auxiliary services management staff [8]	312	4.5	269	43	0	96	6.5	96	0	0	548	78	470
Other	81	1.2	79	2	0	1	.1	0	1	0	150	61	89
	ACADEMIC FIELDS [9]												
Total	17,903	100.0	2,029	13,744	2,130	12,563	100.0	2,512	8,774	1,277	29,802	3,554	26,248
Agriculture *(Includes agricultural economics and agricultural engineering)* [10]													
Total	*141*	*.8*	*18*	*88*	*55*	*0*	*0*	*0*	*0*	*0*	*34*	*0*	*34*

See footnotes at end of table.

Table 21.—Number and percent of *full- and part-time* professional staff, October 1963, by *detailed field* and by degree; and estimated further number and percent needed for full-time replacements and additions, November 1963–October 1969, by detailed field: *2-year institutions* (junior colleges, technical schools, and semiprofessional schools), aggregated United States—Con.

Field	Staff, October 1963										Estimated further full-time staff needed November 1963–October 1969		
	Full-time					Part-time							
	Total		Bachelor's	Master's	Doctor's	Total		Bachelor's	Master's	Doctor's	Total	Replacements	Additions
	Number	Percent				Number	Percent						
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	ACADEMIC FIELDS [1]—Continued												
Architecture *(Includes architectural engineering)*													
Total	*29*	*.2*	*8*	*21*	*0*	*50*	*.4*	*24*	*26*	*0*	*6*	*3*	*3*
Biological Sciences *(Includes all "basic sciences" of the health professions)*													
Total	*1,092*	*6.1*	*23*	*880*	*189*	*388*	*3.1*	*18*	*330*	*40*	*1,536*	*205*	*1,331*
General biology	699	3.9	20	532	147	345	2.7	18	288	39	1,028	148	880
General botany	90	.5	1	89	0	1	0	0	1	0	60	18	42
General zoology	182	0	2	159	21	22	.2	0	21	1	157	19	138
Anatomy and histology	75	.4	0	74	1	0	0	0	0	0	125	18	107
Bactriology, microbiology, mycology, parasitology, and virology	22	.1	0	5	17	1	0	0	1	0	111	1	110

Biochemistry	1	0	0	0	1	0	0	0	0	0	36	0	36
Pathology [11]	0	0	0	0	0	0	0	0	0	0	0	0	0
Pharmacology	0	0	0	0	0	0	0	0	0	0	0	0	0
Physiology [12]	23	.1	0	21	2	2	0	0	2	0	2	1	1
Biophysics, cytology, ecology, embryology, entomology, genetics, plant pathology, plant, physiology, and other biological sciences [13]	0	0	0	0	0	17	.1	0	17	0	17	0	17
Business and Commerce													
Total	*2,745*	*15.3*	*846*	*1,721*	*178*	*2,202*	*17.5*	*693*	*1,333*	*176*	*3,334*	*635*	*2,699*
Accounting, auditing, and taxation	723	4.0	198	490	35	706	5.6	137	551	18	1,080	177	903
Finance, investments, and law [14]	144	.8	1	126	17	423	3.4	163	156	104	406	62	344
Secretarial studies	1,151	6.4	432	649	70	330	2.6	124	188	18	839	190	649
Marketing, retailing, wholesaling, and advertising	314	1.8	84	191	39	269	2.1	87	164	18	404	63	341
Personnel management and industrial relations	62	.3	43	19	0	95	.8	10	85	0	187	18	169
Business and commerce, general, and not otherwise classified	351	2.0	88	246	17	379	3.0	172	189	18	418	125	293
Education													
Total	*1,996*	*11.1*	*366*	*1,531*	*99*	*546*	*4.3*	*195*	*333*	*18*	*2,157*	*203*	*1,954*
Health education, physical education, and recreation (including athletic coaches)	1,253	7.0	229	1,023	1	438	3.5	160	260	18	1,334	116	1,218
Educational psychology (including special education, educational counseling, and guidance)	132	.7	0	114	18	72	.6	0	72	0	210	35	175
Industrial arts education and trade and industrial education [15]	166	.9	52	114	0	35	.3	35	0	0	130	52	78
Elementary education, nursery and kindergarten, and early childhood education (including art education and music education)	77	.4	42	35	0	0	0	0	0	0	121	0	121
Secondary education (including junior high school [16]	61	.3	0	18	43	0	0	0	0	0	0	0	0

See footnotes at end of table.

Table 21.—Number and percent of *full- and part-time* professional staff, October 1963, by *detailed field* and by degree; and estimated further number and percent needed for full-time replacements and additions, November 1963–October 1969, by detailed field: *2-year institutions* (junior colleges, technical schools, and semiprofessional schools), aggregated United States—Con.

Field	Staff, October 1963										Estimated further full-time staff needed November 1963–October 1969		
	Full-time					Part-time							
	Total		Bachelor's	Master's	Doctor's	Total		Bachelor's	Master's	Doctor's	Total	Replacements	Additions
	Number	Percent				Number	Percent						
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	ACADEMIC FIELDS [9]—Continued												
Education—Continued													
Educational administration and supervision and educational finance (both elementary and secondary)	44	.2	43	0	1	1	0	0	1	0	0	0	0
Higher education (including junior college)	17	.1	0	17	0	0	0	0	0	0	0	0	0
Other [17]	246	7.4	0	210	36	0	0	0	0	0	362	0	362
Engineering													
Total	*278*	*1.6*	*40*	*237*	*1*	*239*	*1.9*	*32*	*189*	*18*	*516*	*81*	*435*
Aeronautical (including aerospace)	3	0	1	2	0	1	0	0	0	1	20	2	18
Chemical	17	.1	0	17	0	0	0	0	0	0	34	0	34
Civil	28	.2	8	20	0	0	0	0	0	0	60	4	56
Electrical	35	.2	15	20	0	12	.1	7	5	0	47	8	39
Mechanical	59	.3	14	45	0	22	.2	21	1	0	47	8	39
Other [18]	136	.8	2	133	1	204	1.6	4	183	17	308	59	249

English and Journalism													
Total	*2,874*	*16.1*	*109*	*2,439*	*326*	*1,471*	*1.7*	*248*	*1,054*	*169*	*4,859*	*547*	*4,312*
English and literature (including comparative literature)	2,702	15.1	109	2,267	326	2,349	10.7	145	1,035	169	4,601	469	4.132
Journalism	172	1.0	0	172	0	122	1.0	103	19	0	258	78	180
Fine and Applied Arts													
Total	*1,535*	*8.6*	*26*	*1,362*	*147*	*1,566*	*12.5*	*571*	*886*	*109*	*3,072*	*311*	*2,761*
Art, general	314	1.8	5	291	18	599	4.8	367	231	1	722	100	622
Music (including sacred music)	618	3.5	18	546	54	476	3.8	120	303	53	1,002	136	866
Speech and dramatic arts (including speech correction)	567	3.2	2	490	75	470	3.7	81	384	55	1,164	56	1,108
Other [19]	36	.2	1	35	0	21	.2	3	18	0	184	19	165
Foreign Languages, Linguistics, and Literature													
Total	*831*	*4.6*	*36*	*584*	*211*	*893*	*7.1*	*196*	*924*	*73*	*1,960*	*223*	*1,737*
Latin, Greek, and Hebrew	2	0	0	2	0	129	1.0	43	86	0	45	45	0
French (including philology and literature)	281	1.6	18	227	36	271	2.2	62	191	18	723	100	623
Spanish (including philology and literature)	369	2.1	1	233	135	246	2.0	20	190	36	623	56	567
Germanic languages (including philology and literature)	154	.9	0	115	39	202	1.6	53	130	19	371	20	351
Russian and other Slavic languages (including philology and literature)	21	.1	17	4	0	39	.3	18	21	0	141	0	141
Other [20]	4	0	0	3	1	6	0	0	6	0	57	2	55
Forestry													
Total	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*0*	*0*	*1*	*18*	*0*	*18*
Geography													
Total	*97*	*.5*	*0*	*95*	*2*	*46*	*.4*	*18*	*27*	*1*	*375*	*55*	*320*
Health Professions [21]													
Total	*263*	*1.5*	*6*	*219*	*38*	*31*	*.2*	*4*	*3*	*24*	*1,052*	*38*	*1,014*
Medical and dental technologies and medical therapies [22]	15	.1	2	10	3	12	.1	3	3	6	45	2	34

See footnotes at end of table.

Table 21.—Number and percent of *full- and part-time* professional staff, October 1963, by *detailed field* and by degree; and estimated further number and percent needed for full-time replacements and additions, November 1963–October 1969, by detailed field: *2-year institutions* (junior colleges, technical schools, and semiprofessional schools), aggregated United States—Con.

Field	Staff, October 1963										Estimated further full-time staff needed November 1963–October 1969		
	Full-time					Part-time							
	Total		Bachelor's	Master's	Doctor's	Total		Bachelor's	Master's	Doctor's	Total	Replacements	Additions
	Number	Percent				Number	Percent						
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	ACADEMIC FIELDS [9]—Continued												
Health Professions [21]—Continued													
Dentistry, D.D.S. and D.M.D. (iucluding graduate specialities)	0	0	0	0	0	0	0	0	0	0	0	0	0
Medical specialities (including dermatology; internal medicine including allergy, cardiovascular disease, gastroenterology and pulomonary diseases; and pediatrics	0	0	0	0	0	18	.1	0	0	18	0	0	0
Surgical specialities (including anesthesiology, colon and rectal surgery, general surgery, neurological surgery, obstetrics and gynecology, ophthalmology, orthopedic surgery, otolaryngology, plastic surgery, thoracic surgery, and urology)	0	0	0	0	0	0	0	0	0	0	0	0	0
Psychiatry and neurology	0	0	0	0	0	0	0	0	0	0	0	0	0

Other specialities (including administrative medicine, physical medicine and rehabilitation, preventive medicine, and radiology)	0	0	0	0	0	0	0	0	0	0	3	0	3
Nursing [23]	248	1.4	4	209	35	1	0	1	0	0	1,004	36	968
Pharmacy	0	0	0	0	0	0	0	0	0	0	0	0	0
Public health	0	0	0	0	0	0	0	0	0	0	0	0	0
Veterinary medicine, D.V.M. (including clinical veterinary medical sciences)	0	0	0	0	0	0	0	0	0	0	0	0	0
Podiatry, optometry, osteopathy, hospital administration, and other health professions)	0	0	0	0	0	0	0	0	0	0	0	0	0
Home Economics [24]													
Total	*204*	*1.1*	*17*	*185*	*2*	*79*	*.6*	*34*	*45*	*0*	*312*	*79*	*233*
Law													
Total	*4*	*0*	*1*	*2*	*1*	*4*	*0*	*0*	*3*	*1*	*1*	*1*	*0*
Library Science													
Total	*3*	*3*	*0*	*3*	*0*	*43*	*.3*	*43*	*0*	*0*	*46*	*0*	*46*
Mathematical Subjects													
Total	*1,195*	*6.7*	*171*	*942*	*82*	*1,228*	*9.8*	*185*	*943*	*100*	*2,195*	*206*	*1,989*
Mathematics	1,194	6.7	170	942	82	1,210	9.6	185	925	100	2,160	206	1,954
Statistics (including actuarial science)	1	0	1	0	0	18	.1	0	18	0	35	0	35
Philosophy *(Includes scholastic philosophy)*													
Total	*254*	*1.4*	*0*	*173*	*81*	*223*	*1.8*	*0*	*144*	*79*	*534*	*61*	*473*
Physical Sciences													
Total	*1,377*	*7.7*	*147*	*1,042*	*188*	*1,026*	*8.2*	*112*	*779*	*135*	*2,350*	*388*	*1,962*
Chemistry [25]	880	4.9	107	631	142	448	3.6	63	291	94	1,087	220	867
Physics [26]	403	2.3	39	325	39	302	2.4	40	241	21	698	142	556

See footnotes at end of table.

Table 21.—Number and percent of *full- and part-time* professional staff, October 1963, by *detailed field* and by degree; and estimated further number and percent needed for full-time replacements and additions, November 1963–October 1969, by detailed field: *2-year institutions* (junior colleges, technical schools, and semiprofessional schools), aggregated United States—Con.

Field	Staff, October 1963										Estimated further full-time staff needed November 1963–October 1969		
	Full-time					Part-time							
	Total		Bachelor's	Master's	Doctor's	Total		Bachelor's	Master's	Doctor's	Total	Replacements	Additions
	Number	Percent				Number	Percent						
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	ACADEMIC FIELDS [9]—Continued												
Physical Sciences—Continued													
Geology	61	.3	0	60	1	40	.3	0	40	0	198	1	197
Geophysics, oceanography, and other earth sciences	29	.2	0	23	6	10	1.1	7	2	1	27	6	21
Astronomy, metallurgy, and other physical sciences	4	0	1	3	0	226	1.8	2	205	19	340	19	321
Psychology													
Total	*567*	*3.2*	*45*	*380*	*142*	*656*	*5.2*	*22*	*514*	*120*	*1,219*	*136*	*1,083*
Clinical; psychological counseling (including guidance and rehabilitation) [17]	62	.3	0	0	62	0	0	0	0	0	17	0	17
Social (including personality)	40	.2	0	35	5	66	.5	2	57	7	23	1	22
Experimental (including physiological and comparative)	0	0	0	0	0	0	0	0	0	0	18	1	17
All other	465	2.6	45	345	75	590	4.7	20	457	113	1,161	134	1,027

Religion													
(Includes religious education, Bible, and theology)													
Total	*214*	*1.2*	*86*	*128*	*0*	*206*	*1.6*	*43*	*121*	*42*	*275*	*43*	*232*
Social Sciences													
Total	*1,916*	*10.7*	*49*	*1,475*	*392*	*1,591*	*12.7*	*54*	*1,388*	*149*	*3,661*	*312*	*3,349*
Basic:													
Anthropology	23	.1	0	21	2	10	.1	1	8	1	56	1	55
Economics [28]	270	1.5	1	246	23	171	1.4	1	134	36	547	71	476
HISTORY—													
European	366	2.0	2	249	115	402	3.2	1	366	35	570	37	533
United States	459	2.6	0	383	76	306	2.4	4	266	36	652	58	594
All other	183	1.0	0	128	55	132	1.1	0	114	18	292	35	257
International relations, political science, and government	195	1.1	1	145	49	235	1.9	25	207	3	587	37	550
Sociology	367	2.0	45	251	71	333	2.7	22	292	19	770	73	697
American civilization, area and regional studies, and all other basic social sciences [29]	53	.3	0	52	1	2	0	0	1	1	143	0	143
Applied:													
Public administration	0	0	0	0	0	0	0	0	0	0	0	0	0
Social work (including social administration)	0	0	0	0	0	0	0	0	0	0	44	0	44
Foreign service programs and all other applied social sciences [30]	0	0	0	0	0	0	0	0	0	0	0	0	0
Trade and Industrial Training [31]													
Total	*157*	*.9*	*35*	*122*	*0*	*27*	*.2*	*20*	*7*	*0*	*141*	*18*	*123*
Broad General Curricula													
Total	*131*	*.7*	*0*	*115*	*16*	*47*	*.4*	*0*	*25*	*22*	*149*	*9*	*140*
General Programs in:													
Humanities	26	.1	0	20	6	3	0	0	3	0	37	2	35
Biological sciences	18	.1	0	14	4	8	.1	0	6	2	25	1	24
Physical sciences	9	.1	0	7	2	27	.2	0	8	19	27	1	26
Social sciences	78	.4	0	74	4	9	.1	0	8	1	60	5	55
All Other Fields													
Total	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*

See footnotes at end of table.

Table 21.—Number and percent of *full- and part-time* professional staff, October 1963, by *detailed field* and by degree; and estimated further number and percent needed for full-time replacements and additions, November 1963–October 1969, by detailed field: *2-year institutions* (junior colleges, technical schools, and semiprofessional schools), aggregated United States—Con.

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	Full-time					Part-time							
	Total		Bachelor's	Master's	Doctor's	Total		Bachelor's	Master's	Doctor's	Total	Replacements	Additions
	Number	Percent				Number	Percent						
1	2	3	4	5	6	7	8	9	10	11	12	13	14
TECHNICAL AND SEMIPROFESSIONAL FIELDS [22]													
Total	3,953	100.0	1,775	2.084	94	1,824	100.0	1,415	405	4	5,464	671	4,793
Engineering-related Technologies													
Total	*1,457*	*36.9*	*879*	*576*	*2*	*1,385*	*75.9*	*1,046*	*337*	*2*	*2,429*	*260*	*2,169*
Aeronautical (aircraft design and maintenance, airport operation, etc.)	13	.3	10	2	1	8	.4	6	2	0	35	5	30
Chemical (chemical processes, leather, paper, plastics, rubber, etc	5	.1	4	1	0	14	.8	9	4	1	148	0	148
Civil (architechtural, drafting and design, building and construction, structural, etc.)	156	3.9	86	70	0	73	4.0	66	7	0	442	30	412
Electrical (electrical construction and wiring, electronics, instrumentation, radio and television, etc.)	520	13.2	354	166	0	254	13.9	180	74	0	588	119	469
General engineering (including engineering aide programs)	36	.9	18	18	0	11	.6	8	3	0	203	35	168

Industrial (production management, quality control, technical sales, etc.)	125	3.2	90	35	0	30	1.6	26	4	0	149	1	148
Mechanical (air conditioning, automotive, diesel, heating, horology, mechanical drafting and machine design, refrigeration, tool and die design, etc.)	471	11.9	295	175	1	897	49.2	658	238	1	574	67	507
Other (metallurgical, naval and marine, nuclear and atomic, petroleum, welding, etc.)	131	3.3	22	109	0	98	5.4	93	5	0	290	3	287
Nonengineering-related Fields													
Total	*2,496*	*63.1*	*896*	*1,508*	*92*	*439*	*24.1*	*369*	*68*	*2*	*3,035*	*411*	*2,624*
Agriculture and forestry (animal science, horticulture and floriculture, industrial agriculture, etc.)	403	10.2	140	263	0	1	.1	1	0	0	333	70	263
Applied, fine, and graphic arts (music, commercial art and advertising, fashion design, interior decorating, photography, printing, radio and television broadcasting etc.)	113	2.9	35	77	1	105	5.8	84	20	1	281	36	245
Automatic data processing	57	1.4	20	37	0	24	1.3	17	7	0	332	4	328
Business and commerce (accounting, management, secretarial, technical office assistants, real estate, insurance, purchasing, selling, industrial or labor relations, etc.)	651	16.5	326	324	1	108	5.9	81	27	0	781	122	569
Health service (dental and medical technicians, dental and medical assistants, practical nursing, X-ray technicians, etc.)	221	5.6	84	119	18	22	1.2	16	6	0	649	58	591
Home economics	327	8.3	79	230	18	5	.3	2	3	0	217	93	124
Other	724	18.3	212	458	54	174	9.5	168	5	1	442	28	414

See footnotes on next page

FOOTNOTES TO TABLE 21

[1] Institutions were instructed to report *only* professional staff in positions ***normally requiring*** a baccalaureate or higher degree.

[2] Includes registrars for professional schools, separate colleges, and branches.

[3] Does NOT include deans of separate colleges, who were reported in their academic fields.

[4] Head librarian and all professional librarians.

[5] Vice-president for student affairs, dean of students, etc.

[6] Includes deans of men, deans of women, and their assistants.

[7] Includes registered nurses.

[8] Food service, housing, bookstore, student union, etc.

[9] Institutions were instructed to report *only* professional instructional and research staff for those fields in which courses are *normally creditable* toward a baccalaureate or higher degree in either the local institution or by transfer to another institution.

[10] Does NOT include agricultural education, forestry, botany; entomology, genetics, etc; plant pathology and physiology; home economics and home economics education; or landscape architecture.

[11] Does NOT include plant pathology.

[12] Does NOT include plant physiology.

[13] Does NOT include general programs in biological sciences.

[14] Does NOT include economics.

[15] Does NOT include trade and industrial training.

[16] Includes agricultural, art, business and commercial, distributive, home economics, and music education.

[17] Includes adult, audiovisual, nursing education, etc.

[18] Does NOT include agricultural and architectural engineering.

[19] Does NOT include general programs in humanities.

[20] Does NOT include area studies.

[21] Does NOT include "basis sciences" of the health professions.

[22] Does NOT include programs not creditable toward a baccalaureate degree.

[23] Does NOT include nursing education and programs in practical nursing.

[24] Does NOT include home economics education.

[25] Does NOT include biochemistry.

[26] Does NOT include biophysics.

[27] Does NOT include educational counseling and guidance.

[28] Does NOT include agricultural economics.

[29] Does NOT include general programs in social sciences.

[30] Does NOT include agricultural economics and industrial relations.

[31] Does NOT include industrial arts education and trade and industrial education.

[32] Institutions were instructed to report *only* professional instructional and research staff for those fields in which courses are NOT normally creditable toward a baccalaureate or higher degree in either the local institution or by transfer to another institution; and NOT to include *adult education* and *craftsman training*.

Table 22.—Total, full- , and part-time enrollment, October 1963; institutions' projections for October 1969; and projected 1963–69 percent increase in seven selected types (three groups) of institutions, by institutional grouping: Aggregate United States

Kind of enrollment	October 1963 (actual)	October 1969 (projected)	Percent increase 1963–69 (projected)
Total, all groups	**4,362,897**	**7,030,255**	**61.1**
	GROUP I: UNIVERSITIES AND TECHNOLOGICAL SCHOOLS		
Total	*1,873,058*	*2,689,641*	*43.6*
Full-time	1,348,281	1,978,013	46.7
Part-time	524,777	711,628	35.6
	GROUP II: LIBERAL ARTS COLLEGES AND TEACHERS COLLEGES		
Total	*1,648,276*	*2,443,001*	*48.2*
Full-time	1,220,425	1,822,196	49.3
Part-time	427,851	620,805	45.1
	GROUP III: 2-YEAR INSTITUTIONS **Junior colleges, technical schools, and semiprofessional schools**		
Total	*841,563*	*1,897,613*	*125.5*
Full-time	416,535	1,035,918	148.7
Part-time	425,028	861,695	102.7

Table 23.—Percent distribution of answers given by 330 institutions of 7 selected types (3 groups) to 11 assumptions, by institutional grouping: Aggregate United States, 1963–64 through 1969–70

Assumption concerning—	Percent distribution			
	Will increase	Will decrease	Will remain about the same	Institution made no assumption
1	2	3	4	5
	GROUP I: UNIVERSITIES AND TECHNOLOGICAL SCHOOLS [1]			
1. Class size	54.0	1.1	42.8	2.1
2. Number of students per professional staff member	47.6	10.7	39.6	2.1
3. Number of semester or quarter hours comprising full-time teaching load	.5	30.5	62.6	6.4
4. Percentage of total professional staff time devoted to research	61.5	.5	32.1	5.9
5. Percentage of total professional staff time devoted to administration	18.7	7.0	71.6	2.7

See footnotes at end of table.

Table 23.—Percent distribution of answers given by 330 institutions of 7 selected types (3 groups) to 11 assumptions, by institutional grouping: Aggregate United States, 1963–64 through 1969–70—Continued

Assumption concerning—	Percent distribution			
	Will increase	Will decrease	Will remain about the same	Institution made no assumption
1	2	3	4	5
	GROUP I: UNIVERSITIES AND TECHNOLOGICAL SCHOOLS [1]—Continued			
6. Changes in institutional policies and practices regarding salaries, promotions, tenure, retirement and "fringe benefits" will affect the attractiveness of an academic career in such a way that faculty turnover	2.1	39.1	52.9	5.9
7. Percentage of professional staff employed on part-time basis	15.5	17.1	62.0	5.4
8. Usual retirement age for professional staff	7.0	3.2	88.2	1.6
9. Percentage of professional staff who are women	43.3	2.2	43.3	11.2
10. Level of preparation of new faculty	34.8	8.0	54.0	3.2
11. Number of weeks for which faculty is employed during the calendar year (at the responding institution itself)	20.3	2.7	72.7	4.3
	GROUP II: LIBERAL ARTS COLLEGES AND TEACHERS COLLEGES [2]			
1. Class size	56.6	2.8	36.8	3.8
2. Number of students per professional staff member	47.2	4.7	43.4	4.7
3. Number of semester or quarter hours comprising full-time teaching load	2.8	16.0	75.5	5.7
4. Percentage of total professional staff time devoted to research	38.7	.9	36.8	23.6
5. Percentage of total professional staff time devoted to administration	22.6	15.1	55.7	6.6
6. Changes in institutional policies and practices regarding salaries, promotions, tenure, retirement, and "fringe benefits" will affect the attractiveness of an academic career in such a way that faculty turnover	7.6	36.8	48.1	7.5
7. Percentage of professional staff employed on part-time basis	14.2	26.4	56.6	2.8
8. Usual retirement age for professional staff	6.6	1.9	81.1	10.4

See footnotes at end of table.

Table 23.—Percent distribution of answers given by 330 institutions of 7 selected types (3 groups) to 11 assumptions, by institutional grouping: Aggregate United States, 1963–64 through 1969–70—Continued

Assumption concerning—	Percent distribution			
	Will increase	Will decrease	Will remain about the same	Institution made no assumption
1	2	3	4	5
	GROUP II: LIBERAL ARTS COLLEGES AND TEACHERS COLLEGES [2]—Continued			
9. Percentage of professional staff who are women	31.1	2.8	53.8	12.3
10. Level of preparation of new faculty	50.0	3.8	40.6	5.6
11. Number of weeks for which faculty is employed during the calendar year (at the responding institution itself)	20.8	.9	70.8	7.5
	GROUP III: 2-YEAR INSTITUTIONS (Junior colleges, technical schools, and semiprofessional schools) [3]			
1 Class size	43.2	2.7	54.1	0
2. Number of students per professional staff member	37.8	10.8	51.4	0
3. Number of semester or quarter hours comprising full-time teaching load	2.7	10.8	86.5	0
4. Percentage of total professional staff time devoted to research	29.7	0	43.3	27.0
5. Percentage of total professional staff time devoted to administration	43.2	10.8	46.0	0
6. Changes in institutional policies and practices regarding salaries, promotions, tenure, retirement, and "fringe benefits" will affect the attractiveness of an academic career in such a way that faculty turnover	10.8	29.7	56.8	2.7
7. Percentage of professional staff employed on part-time basis	21.6	16.2	59.5	2.7
8. Usual retirement age for professional staff	0	2.7	94.6	2.7
9. Percentage of professional staff who are women	21.6	5.4	64.9	8.1
10. Level of preparation of new faculty	51.3	0	48.7	0
11. Number of weeks for which faculty is employed during the calendar year (at the responding institution itself)	27.0	2.7	64.9	5.4

[1] 187 institutions.

[2] 106 institutions.

[3] 37 institutions.

Totals by Size of Faculty and Other Professional Staff

Since the size categories of faculty and other professional staff vary among the three groups covered by this study, it is difficult to generalize from the findings. The large category in each of the three groups has a higher percentage of doctorates among its total professional staff than does the small category. The large category in liberal arts colleges and teachers colleges, and the same category in 2-year institutions, both estimate that their demands for additional full-time staff and that their projected enrollment increases from November 1963 through October 1969 will be at rates higher than the rates in the small categories. The reverse is the case with the universities and technological schools, a fact which may indicate that they believe they are approaching, have reached, or have exceeded optimum size.

Table 24.—Number and percent of *full-time* professional staff, October 1963, needed for *full-time* replacements and additions, November 1963–faculty and other professional staff of *1,500 and over*, aggregate United

Field	Staff, October 1963				
	Total		Number, by degree		
	Number	Percent	Bachelor's	Master's	Doctor's
1	2	3	4	5	6
Total, all fields	**61,866**	**100.0**	**11,652**	**15,407**	**34,807**
Administrative					
Total	*9,550*	*15.4*	*5,561*	*2,815*	*1,174*
General	1,892	3.1	1,130	504	258
Academic affairs	2,905	4.7	1,118	1,412	375
Student services	2,320	3.8	1,245	558	517
Business affairs	2,433	3.9	2,068	341	24
Academic					
Total	*52,021*	*84.1*	*5,978*	*12,489*	*33,554*
Agriculture and forestry	3,105	5.0	757	943	1,405
Biological sciences	5,448	8.8	373	423	4,652
Business and commerce	1,883	3.0	108	557	1,218
Education	4,416	7.1	495	1,588	2,333
Engineering (including architecture)	6,378	10.3	1,460	2,311	2,607
English and journalism	2,717	4.4	140	923	1,654
Fine and applied arts	2,725	4.4	375	1,249	1,101
Foreign languages	2,085	3.4	96	458	1,531
Geography	277	.5	4	47	226
Health professions	9,200	14.9	888	1,375	6,937
Home economics	625	1.0	121	334	170
Law	628	1.0	198	191	239
Library science	155	.3	17	68	70
Mathematical subjects	1,986	3.2	174	397	1,415
Philosophy	387	.6	10	41	336
Physical sciences	4,370	7.1	551	567	3,252
Psychology	1,313	2.1	24	136	1,153
Religion	70	.1	3	8	59
Basic social sciences	3,428	5.5	101	466	2,861
Applied social sciences	781	1.3	67	399	315
All other	44	.1	16	8	20
Technical and Semiprofessional					
Total	*295*	*.5*	*113*	*108*	*79*
Engineering-related	119	.2	47	48	24
Nonengineering-related	176	.3	66	55	55

by *large field* and by degree; and estimated further number and percent October 1969, by *large field: Universities and technological schools* with States

Staff, October 1963—Continued			Estimated further staff needs, November 1963–October 1969					
Percent, by degree			Total		Number		Percent	
Bachelor's	Master's	Doctor's	Number	Percent	Replacements	Additions	Replacements	Additions
7	8	9	10	11	12	13	14	15
18.8	**24.9**	**56.3**	**35,383**	**100.0**	**12,210**	**23,173**	**34.5**	**65.5**
58.2	*29.5*	*12.3*	*4,811*	*13.6*	*2,016*	*2,795*	*4,.9*	*58.1*
59.7	26.6	13.7	738	2.1	265	473	35.9	64.1
38.5	48.6	12.9	1,489	4.2	581	908	39.0	61.0
53.6	24.1	22.3	1,300	3.7	593	707	45.6	54.4
75.0	14.0	1.0	1,284	3.6	577	707	44.9	55.1
11.5	*24.0*	*64.5*	*30,303*	*85.6*	*10,126*	*20,177*	*33.4*	*66.6*
24.4	30.4	45.2	1,355	3.8	654	701	48.3	51.7
6.8	7.8	85.4	2,981	8.4	865	21,116	29.0	71.0
5.7	29.6	64.7	1,171	3.3	395	776	33.7	66.3
11.2	36.0	52.8	2,647	7.5	863	1,784	32.6	67.4
22.9	36.2	40.9	3,975	11.2	1,586	2,389	39.9	60.1
5.1	34.0	60.9	1,638	4.6	498	1,140	30.4	69.6
13.8	45.8	40.4	1,645	4.7	527	1,118	32.0	68.0
4.6	22.0	3.4	1,272	3.6	377	895	29.6	70.4
1.4	17.0	81.6	175	.5	44	131	25.1	74.9
9.7	14.9	75.4	5,033	14.2	1,595	3,438	31.7	68.3
19.4	53.4	27.2	314	.9	144	170	45.9	54.1
31.5	30.4	38.1	387	1.1	120	267	31.0	69.0
11.0	43.9	45.1	102	.3	36	66	35.3	64.7
8.8	20.0	71.2	1,420	4.0	436	984	30.7	69.3
2.6	10.6	86.8	221	.6	67	154	30.3	69.7
12.6	13.0	74.4	2,627	7.4	866	1,761	33.0	67.0
1.8	10.4	87.8	742	2.1	240	502	32.3	67.7
4.3	11.4	84.3	47	.1	18	29	38.3	61.7
2.9	13.6	83.5	2,152	6.1	661	1,491	30.7	69.3
8.6	51.1	40.3	380	1.1	128	252	33.7	66.3
36.3	18.2	45.5	19	.1	6	13	31.6	68.4
38.3	*34.9*	*26.8*	*269*	.8	*68*	*201*	*25.3*	*74.7*
39.5	40.3	20.2	140	.4	23	117	16.4	83.6
37.4	31.3	31.3	129	.4	45	84	34.9	65.1

Table 25.—Number and percent of *part-time* professional staff, by *large field*
Universities and technological schools with faculty and other professional

Field	Part-time staff	
	Total	
	Number	Percent
1	2	3
Total, all fields	**25,151**	**100.0**
Administrative		
Total	*1,215*	*4.8*
General	77	.3
Academic affairs	183	.7
Student services	685	2.7
Business affairs	270	1.1
Academic		
Total	*23,341*	*92.8*
Agriculture and forestry	570	2.3
Biological sciences	1,375	5.5
Business and commerce	1,040	4.1
Education	1,669	6.6
Engineering (including architecture)	1,555	6.2
English and journalism	683	2.7
Fine and applied arts	652	2.6
Foreign languages	639	2.5
Geography	65	.3
Health professions	10,670	42.4
Home economics	103	.4
Law	178	.7
Library science	58	.2
Mathematical subjects	863	3.4
Philosophy	77	.3
Physical sciences	1,262	5.0
Psychology	496	2.0
Religion	18	.1
Basic social sciences	1,072	4.3
Applied social sciences	285	1.1
All other	11	.04
Technical and Semiprofessional		
Total	*5 5*	*2.4*
Engineering-related	191	.8
Nonengineering-related	404	1.6

and by degree; total, and part-time as percent of total, by large field: staff of *1,500 and over*, aggregate United States, October 1963

Part-time staff—Continued						Total staff	Part-time as percent of total
Number by degree			Percent by degree				
Bachelor's	Master's	Doctor's	Bachelor's	Master's	Doctor's	10	11
4	5	6	7	8	9		
5,051	5,917	14,183	20.1	23.5	56.4	87,017	28.9
449	*281*	*485*	*37.0*	*23.1*	*39.9*	*10,765*	*11.3*
35	22	20	45.4	28.6	26.0	1,969	3.9
62	81	40	33.9	44.3	21.8	3,088	5.9
150	123	412	21.9	18.0	60.1	3,055	22.4
202	55	13	74.8	20.4	4.8	2,703	10.0
4,355	*5,375*	*13,611*	*18.7*	*23.0*	*58.3*	*75,362*	*31.0*
239	206	125	41.9	36.2	21.9	3,675	15.5
283	189	903	20.6	13.7	65.7	6,823	20.2
319	547	174	30.7	52.6	16.7	2,923	35.6
404	812	453	24.2	48.7	27.1	6,085	27.4
557	716	282	35.8	46.1	18.1	7,933	19.6
179	403	101	26.2	59.0	14.8	3,400	20.1
299	279	74	45.9	42.8	11.3	3,377	19.3
187	296	156	29.3	46.3	24.4	2,724	23.5
17	23	25	26.1	35.4	38.5	342	19.0
389	370	9,911	3.6	3.5	92.9	19,870	53.7
32	53	18	31.1	51.4	17.5	728	14.1
111	19	48	62.3	10.7	27.0	806	22.1
18	30	10	31.0	51.7	17.3	213	27.2
324	374	165	37.6	43.3	19.1	2,849	30.3
21	30	26	27.3	39.0	33.7	464	16.6
629	350	283	49.9	27.7	22.4	5,632	22.4
112	135	249	22.6	27.2	50.2	1,809	27.4
0	2	16	0	11.1	88.9	88	20.5
177	393	502	16.5	36.7	46.8	4,500	23.8
50	148	87	17.6	51.9	30.5	1,066	26.7
8	0	3	72.7	0	27.3	55	20.0
247	*261*	87	*41.5*	*43.9*	*14.6*	*890*	*66.9*
55	78	58	28.8	40.8	30.4	310	61.6
192	183	29	47.5	45.3	7.2	580	69.7

Table 26.—Number and percent of *full-time* professional staff, October 1963, needed for *full-time* replacements and additions, November 1963–faculty and other professional staff of *under 1,500,* aggregate United

Field	Staff, October 1963				
	Total		Number, by degree		
	Number	Percent	Bachelor's	Master's	Doctor's
1	2	3	4	5	6
Total, all fields	**74,765**	**100.0**	**11,199**	**25,564**	**38,002**
Administrative					
Total	*11,398*	*15.2*	*5,635*	*4,019*	*1,744*
General	2,630	3.5	1,327	852	451
Academic affairs	3,243	4.3	974	1,711	558
Student services	2,728	3.6	1,090	951	687
Business affairs	2,797	3.7	2,244	505	48
Academic					
Total	*62,294*	*83.3*	*5,158*	*21,127*	*36,009*
Agriculture and forestry	3,808	5.1	338	1,271	2,199
Biological sciences	5,512	7.4	117	601	4,794
Business and commerce	2,939	3.9	183	1,457	1,299
Education	5,871	7.9	724	2,593	2,554
Engineering (including architecture)	7,498	10.0	1,290	3,369	2,839
English and journalism	3,973	5.3	168	1,947	1,858
Fine and applied arts	3,950	5.3	537	2,263	1,150
Foreign languages	2,518	3.4	145	927	1,446
Geography	297	.4	9	92	196
Health professions	6,447	8.6	417	1,230	4,800
Home economics	942	1.3	88	593	261
Law	724	1.0	237	277	210
Library science	147	.2	16	104	27
Mathematical subjects	2,925	3.9	149	1,205	1,571
Philosopy	855	1.1	31	197	627
Physical sciences	6,203	8.3	400	975	4,828
Psychology	1,259	1.7	23	139	1,097
Religion	671	.9	36	229	406
Basic social sciences	5,144	6.9	145	1,261	3,738
Applied social sciences	532	.7	32	333	167
All other	179	.2	73	64	42
Technical and Semiprofessional					
Total	*1,073*	*1.4*	*406*	*418*	*249*
Engineering-related	382	.5	171	140	71
Nonengineering-related	691	.9	235	278	178

by *large field* and by degree; and estimated further number and percent October 1969, by *large field: Universities and technological schools* with States

Staff, October 1963—Continued			Estimated further staff needs, November 1963–October 1969					
Percent, by degree			Total		Number		Percent	
Bachelcr's	Master's	Doctor's	Number	Percent	Replacements	Additions	Replacements	Additions
7	8	9	10	11	12	13	14	15
15.0	**34.2**	**50.8**	**47,607**	**100.0**	**14,480**	**33,127**	**30.4**	**69.6**
49.4	*35.3*	*15.3*	*6,267*	*13.2*	*2,018*	*4,249*	*32.2*	*67.8*
50.5	32.4	17.1	1,232	2.6	413	819	33.5	66.5
30.0	52.8	17.2	1,943	4.1	621	1,322	32.0	68.0
40.0	34.8	25.2	1,674	3.5	536	1,138	32.0	68.0
80.2	18.1	1.7	1,418	3.0	448	970	31.6	68.4
8.3	*33.9*	*57.8*	*40,357*	*84.8*	*12,268*	*28,089*	*30.4*	*69.6*
8.9	33.4	57.7	1,469	3.1	669	800	45.5	54.5
2.1	10.9	87.0	3,399	7.1	1,009	2,390	29.7	70.3
6.2	49.6	44.2	2,217	4.7	688	1,529	31.0	69.0
12.3	44.2	43.5	3,932	8.3	1,130	2,802	28.7	71.3
17.2	44.9	37.9	4,839	10.2	1,500	3,339	31.0	69.0
4.2	49.0	46.8	2,718	5.7	772	1,946	28.4	71.6
13.6	57.3	29.1	2,433	5.1	764	1,669	31.4	68.6
5.8	36.8	57.4	1,828	3.8	467	1,361	25.5	74.5
3.0	31.0	66.0	256	.5	62	194	24.2	75.8
6.5	19.0	74.5	3,525	7.4	1,408	2,117	39.9	60.1
9.3	63.0	27.7	691	1.5	278	413	40.2	59.8
32.7	38.3	29.0	388	.8	146	242	37.6	62.4
10.9	70.7	18.4	121	.3	37	84	30.6	69.4
5.1	41.2	53.7	2,294	4.8	631	1,663	27.5	72.5
3.6	23.1	73.3	510	1.1	155	355	30.4	69.6
6.5	15.7	77.8	4,236	8.9	1,087	3,149	25.7	74.3
1.8	11.1	87.1	985	2.1	214	771	21.7	78.3
5.4	34.1	50.5	356	.8	155	201	43.5	56.5
2.8	24.5	72.7	3,621	7.6	918	1,703	25.4	74.6
6.0	62.6	31.4	335	.7	132	203	39.4	60.6
40.8	35.7	23.5	204	.4	46	158	22.5	77.5
37.8	*39.0*	*23.2*	*983*	*2.1*	*194*	*789*	*19.7*	*80.3*
44.8	36.6	18.6	470	1.0	95	375	20.2	79.8
34.0	40.2	25.8	513	1.1	99	414	19.3	80.7

Table 27.—Number and percent of *part-time* professional staff, by *large field*
***Universities and technological schools* with faculty and other**

Field	Part-time staff	
	Total	
	Number	Percent
1	2	3
Total, all fields	**22,042**	**100.0**
Administrative		
Total	*868*	*3.9*
General	72	.3
Academic affairs	96	.4
Student services	648	2.9
Business affairs	52	.2
Academic		
Total	*20,495*	*93.0*
Agriculture and forestry	112	.5
Biological sciences	780	3.5
Business and commerce	1,545	7.0
Education	1,289	5.9
Engineering (including architecture)	1,696	7.7
English and journalism	884	4.0
Fine and applied arts	1,059	4.8
Foreign languages	449	2.0
Geography	43	.2
Health professions	8,577	38.9
Home economics	163	.7
Law	400	1.8
Library science	46	.2
Mathematical subjects	884	4.0
Philosophy	106	.5
Physical sciences	742	3.4
Psychology	368	1.7
Religion	158	.7
Basic social sciences	910	4.1
Applied social sciences	190	.9
All other	94	.4
Technical and Semiprofessional		
Total	*679*	*3.1*
Engineering-related	522	2.4
Nonengineering-related	157	.7

and by degree; total, and part-time as percent of total, by large field: professional staff of *under 1,500*, aggregate United States, October 1963

Part-time staff—Continued						Total staff	Part-time as percent of total
Number by degree			Percent by degree				
Bachelor's	Master's	Doctor's	Bachelor's	Master's	Doctor's		
4	5	6	7	8	9	10	11
4,732	**6,507**	**10,803**	**21.5**	**29.5**	**49.0**	**96,807**	**22.8**
370	*240*	*258*	*42.6*	*27.6*	*29.8*	*12,266*	*7.1*
31	36	5	43.1	50.0	6.9	2,702	2.7
40	35	21	41.7	36.4	21.9	3,339	2.9
268	148	231	41.4	23.0	35.6	3,376	19.2
31	20	1	59.6	38.5	1.9	2,849	1.8
3,997	*5,995*	*10,503*	*19.5*	*29.3*	*51.2*	*82,789*	*24.8*
30	46	36	26.8	41.1	32.1	3,920	2.9
105	124	551	13.5	15.9	70.6	6,292	12.4
552	849	144	35.7	55.0	9.3	4,484	34.5
221	776	292	17.1	60.2	22.7	7,160	18.0
611	792	293	36.0	46.7	17.3	8,194	18.4
231	568	85	26.1	64.3	9.6	4,857	18.2
526	443	90	49.7	41.8	8.5	5,009	21.1
106	254	89	23.6	56.6	19.8	2,967	15.1
9	24	10	20.9	55.8	23.3	340	12.6
669	239	7,669	7.8	2.8	89.4	15,024	57.1
73	7	19	44.8	43.5	11.7	1,105	14.8
259	97	44	64.8	24.2	11.0	1,124	35.6
5	39	2	10.9	84.8	4.3	193	23.8
213	525	146	24.1	59.4	16.5	3,809	23.2
8	64	34	7.5	60.4	32.1	961	11.0
134	278	330	18.1	37.4	44.5	6,945	10.7
14	126	228	3.8	34.2	62.0	1,627	22.6
25	75	58	15.8	47.5	36.7	829	19.1
130	456	324	14.3	50.1	35.6	6,054	15.0
18	123	49	9.5	64.7	25.8	722	26.3
58	26	10	61.7	27.7	10.6	273	34.4
365	*272*	*42*	*53.7*	*40.1*	*6.2*	*1,752*	*38.8*
294	211	17	56.3	40.4	3.3	904	57.7
71	61	25	45.2	38.9	15.9	848	18.5

Table 28.—Number and percent of *full-time* professional staff, October 1963, needed for *full-time* replacements and additions, November 1963–faculty and other professional staff of *150 and over*, aggregate United

Field	Staff, October 1963				
	Total		Number, by degree		
	Number	Percent	Bachelor's	Master's	Doctor's
1	2	3	4	5	6
Total, all fields	**52,674**	**100.0**	**6,557**	**25,792**	**20,325**
Administrative					
Total	*10,019*	*19.0*	*4,072*	*4,136*	*1,811*
General	2,170	4.1	815	857	498
Academic affairs	3,002	5.7	666	1,706	630
Student services	2,859	5.4	1,100	1,107	652
Business affairs	1,988	3.8	1,491	466	31
Academic					
Total	*42,248*	*80.2*	*2,345*	*21,400*	*18,503*
Agriculture and forestry	405	.8	13	213	179
Biological sciences	2,584	4.9	96	762	1,726
Business and commerce	1,773	3.4	194	1,096	483
Education	9,629	18.3	585	5,525	3,519
Engineering (including architecture)	922	1.8	137	504	281
English and journalism	4,400	8.4	177	2,368	1,855
Fine and applied arts	4,244	8.1	310	2,918	1,016
Foreign languages	2,639	5.0	82	1,235	1,322
Geography	612	1.2	2	322	288
Health professions	753	1.4	77	541	135
Home economics	443	.8	15	383	45
Law	129	.2	76	32	21
Library science	161	.3	2	141	18
Mathematical subjects	2,178	4.1	145	1,272	761
Philosophy	840	1.6	41	228	571
Physical sciences	3,242	6.2	85	1,157	2,000
Psychology	1,338	2.6	18	258	1,062
Religion	398	.8	45	176	177
Basic social sciences	5,259	10.0	154	2,101	3,004
Applied social sciences	96	.2	2	61	33
All other	203	.4	89	107	7
Technical and Semiprofessional					
Total	*407*	*.8*	*140*	*256*	*11*
Engineering-related	79	.2	35	44	0
Nonengineering-related	328	.6	105	212	11

by *large field* and by degree; and estimated further number and percent October 1969, by large field: *Liberal arts colleges and teachers colleges* with States

Staff, October 1963—Continued			Estimated further staff needs, November 1963–October 1969					
Percent, by degree			Total		Number		Percent	
Bachelor's	Master's	Doctor's	Number	Percent	Replacements	Additions	Replacements	Additions
7	8	9	10	11	12	13	14	15
12.4	49.0	38.6	43,498	100.0	9,291	34,207	21.4	78.6
40.6	*41.3*	*18.1*	*6,968*	*16.0*	*1,872*	*5,096*	*26.9*	*73.1*
37.6	39.5	22.9	1,472	3.4	453	1,019	30.8	69.2
22.2	56.8	21.0	2,234	5.1	613	1,621	27.4	72.6
38.5	38.7	22.8	1,879	4.3	522	1,357	27.8	72.2
75.0	23.4	1.6	1,383	3.2	284	1,099	20.5	79.5
5.5	*50.7*	*43.8*	*36,282*	*83.4*	*7,401*	*28,881*	*20.4*	*79.6*
3.2	52.6	44.2	117	.3	26	91	22.2	77.8
3.7	29.5	66.8	2,627	6.0	397	2,230	15.1	84.9
10.9	61.8	27.2	1,551	3.6	346	1,205	22.3	77.7
6.1	57.4	36.5	6,342	16.9	1,742	5,600	23.7	76.3
14.8	54.7	30.5	441	1.0	125	316	28.3	71.7
4.0	53.8	42.2	3,644	8.4	773	2,871	21.2	78.8
7.3	68.8	23.9	3,377	7.8	549	2,828	16.3	83.7
3.1	46.8	50.1	2,683	6.2	506	2,177	18.9	81.1
.3	52.6	47.1	493	1.1	33	460	6.7	93.3
10.2	71.9	17.9	427	1.0	163	264	38.2	61.8
3.4	86.4	10.2	338	.8	81	257	24.0	76.0
58.9	24.8	16.3	76	.2	11	65	14.5	85.5
1.2	87.6	11.2	294	.7	45	249	15.3	84.7
6.7	58.4	34.9	1,938	4.5	410	1,528	21.2	78.8
4.9	27.1	68.0	827	1.9	215	612	26.0	74.0
2.6	35.7	61.7	2,830	6.5	490	2,340	17.3	82.7
1.8	19.3	79.4	1,488	3.4	257	1,231	17.3	82.7
11.3	44.2	44.5	277	.6	167	110	60.3	39.7
2.9	40.0	57.1	5,276	12.1	1,053	4,223	20.0	80.0
2.1	63.5	34.4	141	.3	8	133	5.7	94.3
43.9	52.7	3.4	95	.2	4	91	4.2	95.8
34.4	*62.9*	*2.7*	*248*	*.6*	*18*	*230*	*7.3*	*92.7*
44.3	55.7	0	85	.2	13	72	15.3	84.7
32.0	64.6	3.4	163	.4	5	158	3.1	96.9

Table 29.—Number and percent of *part-time* professional staff, by *large field* *arts colleges and teachers colleges* with faculty and other professional

Field	Part-time staff	
	Total	
	Number	Percent
1	2	3
Total, all fields	**11,682**	**100.0**
Administrative		
Total	*696*	*6.0*
General	58	.5
Academic affairs	191	1.6
Student services	425	3.6
Business affairs	22	.2
Academic		
Total	*10,744*	*2.0*
Agriculture and forestry	1	0
Biological sciences	473	4.1
Business and commerce	1,080	9.3
Education	2,283	19.5
Engineering (including architecture)	394	3.4
English and journalism	1,134	9.7
Fine and applied arts	1,064	9.1
Foreign languages	674	5.8
Geography	89	.8
Health professions	56	.5
Home economics	171	1.5
Law	204	1.8
Library science	87	.7
Mathematical subjects	542	4.6
Philosophy	206	1.8
Physical sciences	513	4.4
Psychology	657	5.6
Religion	46	.4
Basic social sciences	972	8.3
Applied social sciences	81	.7
All other	17	.1
Technical and Semiprofessional		
Total	*242*	*2.1*
Engineering-related	39	.3
Nonengineering-related	203	1.7

and by degree; total, and part-time as percent of total, by large field: *Liberal* staff of *150 and over*, aggregate United States, October 1963

Part-time staff—Continued						Total staff	Part-time as percent of total
Number by degree			Percent by degree				
Bachelor's	Master's	Doctor's	Bachelor's	Master's	Doctor's		
4	5	6	7	8	9	10	11
3,291	5,938	2,453	28.2	50.8	21.0	64,356	18.2
242	*150*	*304*	*34.8*	*21.5*	*43.7*	*10,715*	*6.5*
17	16	25	29.3	27.6	43.1	2,228	2.6
131	44	16	68.6	23.0	8.4	3,193	6.0
84	78	263	19.8	18.3	61.9	3,284	12.9
10	12	0	45.5	54.5	0	2,010	1.1
3,004	*5,697*	*2,143*	*28.0*	*52.1*	*19.9*	*52,992*	*20.3*
1	0	0	100.0	0	0	406	.2
186	88	199	39.3	18.6	42.1	3,057	15.7
487	535	58	45.1	49.5	5.4	2,853	37.9
471	1,287	525	20.6	56.4	23.0	11,912	19.2
120	244	30	30.5	61.9	7.6	1,316	29.9
358	725	51	31.6	63.9	4.5	5,534	20.5
326	673	65	30.6	63.3	6.1	5,308	20.0
267	308	99	39.6	45.7	14.7	3,313	20.3
11	42	36	12.4	47.2	40.4	701	12.7
23	13	20	41.1	23.2	35.7	809	6.9
86	81	4	50.3	47.4	2.3	614	27.9
172	10	22	84.3	4.9	10.8	333	61.3
25	60	2	28.7	69.0	2.3	248	35.1
112	384	46	20.7	70.8	8.5	2,720	19.9
17	100	89	8.3	48.5	43.2	1,046	19.7
166	195	152	32.4	38.0	29.6	3,755	13.7
39	161	457	5.9	24.5	69.6	1,995	32.9
0	21	25	0	45.7	54.3	444	10.4
109	609	254	11.2	62.7	26.1	6,231	15.6
26	47	8	32.1	58.0	9.9	177	45.8
3	14	0	17.6	82.4	0	220	7.7
45	*191*	*6*	*18.6*	*78.9*	*2.5*	*649*	*37.3*
0	39	0	0	100.0	0	118	33.1
45	152	6	22.2	74.9	2.9	531	38.2

Table 30.—Number and percent of *full-time* professional staff, October 1963 needed for *full-time* replacements and additions, November 1963–faculty and other professional staff of *under 150*, aggregate United States

Field	Staff, October 1963				
	Total		Number, by degree		
	Number	Percent	Bachelor's	Master's	Doctor's
1	2	3	4	5	6
Total, all fields	**46,471**	**100.0**	**8,068**	**24,574**	**13,829**
Administrative					
Total	*11,985*	*25.8*	*5,416*	*4,679*	*1,890*
General	3,854	8.3	1,769	1,390	695
Academic affairs	2,797	6.0	497	1,628	672
Student services	2,603	5.6	1,081	1,074	448
Business affairs	2,731	5.9	2,069	587	75
Academic					
Total	*34,476*	*74.2*	*2,652*	*19,885*	*11,939*
Agriculture and forestry	172	.4	0	130	42
Biological sciences	2,249	4.8	42	1,049	1,158
Business and commerce	1,163	2.5	150	902	111
Education	6,252	13.5	906	3,821	1,525
Engineering (including architecture)	103	.2	23	69	11
English and journalism	3,554	7.7	273	2,043	1,238
Fine and applied arts	4,259	9.2	398	3,252	609
Foreign languages	3,231	7.0	336	1,627	1,268
Geography	225	.5	0	182	43
Health professions	319	.7	45	274	0
Home economics	622	1.3	44	523	55
Law	0	0	0	0	0
Library science	129	.3	0	118	11
Mathematical subjects	1,729	3.7	109	1,288	332
Philosophy	903	1.9	11	387	505
Physical sciences	2,630	5.7	142	1,082	1,406
Psychology	999	2.2	55	374	570
Religion	1,558	3.4	43	696	819
Basic social sciences	4,335	9.3	75	2,034	2,226
Applied social sciences	34	.1	0	34	0
All other	10	0	0	0	10
Technical and Semiprofessional					
Total	*10*	*0*	*0*	*10*	*0*
Engineering-related	0	0	0	0	0
Nonengineering-related	10	0	0	10	0

by *large field* and by degree; and estimated further number and percent, October 1969, by large field: *Liberal arts colleges and teachers colleges* with

Staff, October 1963—Continued			Estimated further staff needs, November 1963–October 1969					
Percent, by degree			Total		Number		Percent	
Bachelor's	Master's	Doctor's	Number	Percent	Replacements	Additions	Replacements	Additions
7	8	9	10	11	12	13	14	15
17.4	52.9	29.8	28,679	100.0	9.958	18,721	34.7	65.3
45.2	*39.0*	*15.8*	*6,540*	*22.8*	*2,322*	*4,218*	*35.5*	*64.5*
45.9	36.1	18.0	2,038	7.1	729	1,309	35.8	64.2
17.8	58.2	24.0	1,525	5.3	456	1,069	29.9	70.1
41.5	41.3	17.2	1,685	5.9	659	1,026	39.1	60.9
75.8	21.5	2.7	1,292	4.5	478	814	37.0	63.0
7.7	*57.7*	*34.6*	*22,064*	*76.9*	*7,636*	*14,428*	*34.6*	*65.4*
0	75.6	24.4	43	.2	22	21	51.2	48.8
1.9	46.6	51.5	1,483	5.2	467	1,016	31.5	68.5
12.9	77.6	9.5	713	2.5	130	583	18.2	81.8
14.5	61.1	24.4	3,389	11.8	1,071	2,318	31.6	68.4
22.3	67.0	10.7	45	.2	35	10	77.8	22.2
7.7	57.5	34.8	2,422	8.5	1,026	1,396	42.4	57.6
9.3	76.4	14.3	2,088	7.3	645	1,443	30.9	69.1
10.4	50.4	38.2	2,264	7.9	959	1,305	42.4	57.6
0	80.9	19.1	173	.6	32	141	18.5	81.5
14.1	85.9	0	157	.6	35	122	22.3	77.7
7.1	84.1	8.8	303	1.1	184	119	60.7	39.3
0	0	0	11	0	0	11	0	100.0
0	91.5	8.5	132	.5	33	99	25.0	75.0
6.3	74.5	19.2	1,226	4.3	413	813	33.7	66.3
1.2	42.9	55.9	622	2.2	216	406	34.7	65.3
5.4	41.1	53.5	1,754	6.1	564	1,190	32.2	67.8
5.5	37.4	57.1	776	2.7	217	559	28.0	72.0
2.7	44.7	52.6	945	3.3	351	594	37.1	62.9
1.7	46.9	51.4	3,510	11.0	1,128	2,022	35.8	64.2
0	100.0	0	346	1.2	108	238	31.2	68.8
0	0	100.0	22	.1	0	22	0	100.0
0	*100.0*	*0*	*75*	*.3*	*0*	*75*	*0*	*100.0*
0	0	0	0	0	0	0	0	0
0	100.0	0	75	.3	0	75	0	100.0

Table 31.—Number and percent of part-time professional staff, by *large field* *arts colleges and teachers colleges* with faculty and other

Field	Part-time staff	
	Total	
	Number	Percent
1	2	3
Total, all fields	**10,044**	**100.0**
Administrative		
Total	*1,549*	*15.4*
General	334	3.3
Academic affairs	247	2.5
Student services	806	8.0
Business affairs	162	1.6
Academic		
Total	*8,495*	*84.6*
Agriculture and forestry	22	.2
Biological sciences	334	3.3
Business and commerce	548	5.5
Education	1,797	17.9
Engineering (including architecture)	22	.2
English and journalism	590	5.9
Fine and applied arts	1,441	14.4
Foreign languages	679	6.8
Geography	99	1.0
Health professions	154	1.5
Home economics	34	.3
Law	0	0
Library science	264	2.6
Mathematical subjects	324	3.2
Philosophy	236	2.4
Physical sciences	272	2.7
Psychology	246	2.5
Religion	692	6.9
Basic social sciences	730	7.3
Applied social sciences	0	0
All other	11	.1
Technical and Semiprofessional		
Total	*0*	*0*
Engineering-related	0	0
Nonengineering-related	0	0

and by degree; total, and part-time as percent of total, by large field: *Liberal* professional staff of *under 150*, aggregate United States, October 1963

Part-time staff—Continued						Total staff	Part-time as percent of total
Number by degree			Percent by degree				
Bachelor's	Master's	Doctcr's	Bachelor's	Master's	Doctor's		
4	5	6	7	8	9	10	11
2,472	**5,379**	**2,193**	**24.6**	**53.6**	**21.8**	**56,515**	**21.6**
580	*517*	*452*	*37.4*	*33.4*	*2.92*	*13,534*	*11.4*
161	130	43	48.2	38.9	12.9	4,188	8.0
150	65	32	60.7	26.3	13.0	3,044	8.1
150	300	356	18.6	37.2	44.2	3,409	23.6
119	22	21	73.4	13.6	13.0	2,893	5.6
1,892	*4,862*	*1,741*	*22.3*	*57.2*	*20.5*	*42,971*	*19.8*
0	22	0	0	100.0	0	194	11.3
74	142	118	22.2	42.5	35.3	2,583	12.9
140	397	11	25.5	72.5	2.0	1,711	32.0
355	1,128	314	19.7	62.8	17.5	8,049	22.3
11	11	0	50.0	50.0	0	125	17.6
118	331	141	20.0	56.1	23.9	4,144	14.2
595	791	55	41.3	54.9	3.8	5,700	25.3
174	366	139	25.6	53.9	20.5	3,910	17.4
11	55	33	11.1	55.6	33.3	324	30.6
91	13	50	59.1	8.4	32.5	473	32.6
0	34	0	0	100.0	0	656	5.2
0	0	0	0	0	0	0	0
54	210	0	20.5	79.5	0	393	67.2
65	237	22	20.1	73.1	6.8	2,053	15.8
21	64	151	8.9	27.1	64.0	1,139	20.7
44	130	98	16.2	47.8	36.0	2,902	9.4
11	119	116	4.5	48.4	47.1	1,245	19.8
54	381	257	7.8	55.1	37.1	1,250	30.8
63	431	236	8.6	59.1	32.3	5,065	14.4
0	0	0	0	0	0	34	0
11	0	0	100.0	0	0	21	52.4
0	*0*	*0*	*0*	*0*	*0*	*10*	*0*
0	0	0	0	0	0	0	0
0	0	0	0	0	0	10	0

Table 32.—Number and percent of *full-time* professional staff, October 1963, needed for *full-time* replacements and additions, November 1963– schools, and semiprofessional schools) with faculty and other professional

Field	Staff, October 1963				
	Total		Number, by degree		
	Number	Percent	Bachelor's	Master's	Doctor's
1	2	3	4	5	6
Total, all fields	**12,524**	**100.0**	**2,122**	**8,651**	**1,751**
Administrative					
Total	*2,071*	*16.5*	*430*	*1,392*	*249*
General	423	3.4	129	175	119
Academic affairs	814	6.5	103	614	97
Student services	693	5.5	82	581	30
Business affairs	141	1.1	116	22	3
Academic					
Total	*7,934*	*63.4*	*442*	*6,031*	*1,461*
Agriculture and forestry	53	.4	18	35	0
Biological sciences	519	4.2	6	324	189
Business and commerce	833	6.7	92	563	178
Education	625	5.0	73	532	20
Engineering (including architecture)	184	1.5	48	135	1
English and journalism	1,488	11.9	31	1,210	247
Fine and applied arts	730	5.8	9	592	129
Foreign languages	361	2.9	18	209	134
Geography	80	.6	0	78	2
Health professions	175	1.4	6	131	38
Home economics	86	.7	0	84	2
Law	4	0	1	2	1
Library science	3	0	0	3	0
Mathematical subjects	611	4.9	33	539	39
Philosophy	65	.5	0	45	20
Physical sciences	698	5.6	81	489	128
Psychology	299	2.4	2	216	81
Religion	0	0	0	0	0
Basic social sciences	937	7.5	6	695	236
Applied social sciences	0	0	0	0	0
All other	183	1.5	18	149	16
Technical and Semiprofessional					
Total	*2,519*	*20.1*	*1,250*	*1,228*	*41*
Engineering-related	897	7.2	599	296	2
Nonengineering-related	1,622	13.0	651	932	39

by *large field* and by degree; and estimated futher number and percent October 1969, by large field: 2-*year institutions* (junior colleges, technical staff of *100 and over*, aggregate United States

Staff, October 1963—Continued			Estimated further staff needs, November 1963–October 1969					
Percent, by degree			Total		Number		Percent	
Bachelor's	Master's	Doctor's	Number	Percent	Replacements	Additions	Replacements	Additions
7	8	9	10	11	12	13	14	15
16.9	**69.1**	**14.0**	**25,937**	**100.0**	**2,108**	**23,829**	**8.1**	**91.9**
20.8	*67.2*	*12.0*	*3,816*	*14.7*	*170*	*3,646*	*4.5*	*95.5*
30.5	41.4	28.1	717	2.8	28	689	3.9	96.1
12.7	75.4	11.9	882	3.4	49	833	5.6	94.4
11.8	83.9	4.3	1,609	6.2	90	1,519	5.6	94.4
82.3	15.6	2.1	608	2.4	3	605	.5	99.5
5.6	*76.0*	*18.4*	*18,761*	*72.3*	*1,583*	*17,178*	*8.4*	*91.6*
34.0	66.0	0	0	0	0	0	0	0
1.2	62.4	36.4	1,108	3.9	116	902	11.4	88.6
11.0	67.6	21.4	1,446	5.6	164	1,282	11.3	88.7
11.7	85.1	3.2	1,094	4.2	64	1,030	5.9	94.1
26.1	73.4	.5	312	1.2	66	246	21.2	78.8
2.1	81.3	16.6	3,562	13.7	272	3,290	7.6	92.4
1.2	81.1	17.7	1,945	7.5	67	1,878	3.4	96.6
5.0	57.9	37.1	1,264	4.9	83	1,181	6.6	93.4
0	97.5	2.5	288	1.1	38	250	13.2	86.8
3.4	74.9	21.7	801	3.1	3	798	.4	99.6
0	97.7	2.3	199	.8	19	180	9.5	90.5
25.0	50.0	25.0	1	0	1	0	100.0	0
0	100.0	0	3	0	0	3	0	100.0
5.4	88.2	6.4	1,491	5.7	94	1,397	6.3	93.7
0	69.2	30.8	286	1.1	19	267	6.6	93.4
11.6	70.1	18.3	1,496	5.8	197	1,299	13.2	86.8
.7	72.2	27.1	906	3.5	93	813	10.3	89.7
0	0	0	0	0	0	0	0	0
.6	74.2	25.2	2,531	9.8	260	2,271	10.3	89.7
0	0	0	2	0	0	2	0	100.0
9.8	81.4	8.8	116	.5	27	89	23.3	76.7
49.6	*48.8*	*1.6*	*3,360*	*13.0*	*355*	*3,005*	*10.6*	*89.4*
66.8	33.0	.2	1,534	5.9	173	1,361	11.3	88.7
40.1	57.5	2.4	1,826	7.0	182	1,644	10.0	90.0

Table 33.—Number and percent of *part-time* professional staff, by *large field* *institutions* (junior colleges, technical schools, and semiprofessional United States, October 1963

Field	Part-time staff	
	Total	
	Number	Percent
1	2	3
Total, all fields	**8,931**	**100.0**
Administrative		
Total	*156*	*1.7*
General	20	.2
Academic affairs	9	.1
Student services	126	1.4
Business affairs	1	.01
Academic		
Total	*7,216*	*80.8*
Agriculture and forestry	1	.01
Biological sciences	223	2.5
Business and commerce	1,233	13.8
Education	353	4.0
Engineering (including architecture)	203	2.3
English and journalism	1,053	11.8
Fine and applied arts	736	8.2
Foreign languages	416	4.7
Geography	28	.3
Health professions	31	.4
Home economics	44	.5
Law	4	.1
Library science	0	0
Mathematical subjects	829	9.3
Philosophy	85	1.0
Physical sciences	495	5.6
Psychology	402	4.5
Religion	0	0
Basic social sciences	1,024	11.5
Applied social sciences	0	0
All other	56	.6
Technical and Semiprofessional		
Total	*1,559*	*17.5*
Engineering-related	1,209	13.5
Nonengineering-related	350	3.9

and by degree; total, and part-time as percent of total, by large field: *2-year* schools) with faculty and other professional staff of *100 and over*, aggregate

Part-time staff—Continued						Total staff	Part-time as percent of total
Number by degree			Percent by degree				
Bachelor's	Master's	Doctor's	Bachelor's	Master's	Doctor's		
4	5	6	7	8	9	10	11
2,422	5,620	889	27.1	62.9	10.0	21,455	41.6
20	*150*	*6*	*12.8*	*83.3*	*3.*	*2,227*	*7.0*
18	2	0	90.0	10.0	0	443	4.5
0	9	0	0	100.0	0	823	1.1
2	118	6	1.6	93.6	4.8	819	15.4
0	1	0	0	100.0	0	142	.7
1,199	*5,138*	*879*	*16.6*	*71.2*	*12.2*	*15,150*	*47.6*
0	0	1	0	0	100.0	54	1.9
18	165	40	8.1	74.0	17.9	742	30.1
433	746	54	35.1	60.5	4.4	2,066	59.7
73	262	18	20.7	74.2	5.1	978	36.1
39	146	18	19.2	71.9	8.9	387	52.5
110	817	126	10.4	77.6	12.0	2,541	41.4
167	478	91	22.7	64.9	12.4	1,466	50.2
22	321	73	5.3	77.2	17.5	777	53.5
18	9	1	64.3	32.1	3.6	108	18.5
4	3	24	12.9	9.7	77.4	206	15.0
17	27	0	38.6	61.4	0	130	33.8
0	3	1	0	75.0	25.0	8	50.0
0	0	0	0	0	0	3	0
168	604	57	20.3	72.6	6.9	1,440	57.6
0	66	19	0	77.6	22.4	150	56.7
52	360	83	10.5	72.7	16.8	1,193	41.5
22	278	102	5.5	69.1	25.4	701	57.3
0	0	0	0	0	0	0	0
54	821	149	5.3	80.2	14.5	1,961	52.2
0	0	0	0	0	0	0	0
2	32	22	3.6	57.1	39.3	239	23.4
1,203	[illegible]	*4*	*77.2*	*22.6*	.1	*4,078*	*38.2*
923	284	2	76.3	23.5	.2	2,106	57.4
280	68	2	80.0	19.4	.6	1,972	17.7

Table 34.—Number and percent of *full-time* professional staff, October 1963, *full-time* replacements and additions, November 1963–October 1969, by semiprofessional schools) with faculty and other professional staff of

Field	Staff, October 1963				
	Total		Number, by degree		
	Number	Percent	Bachelor's	Master's	Doctor's
1	2	3	4	5	6
Total, all fields	**16,213**	**100.0**	**4,271**	**10,867**	**1,075**
Administrative					
Total	*4,792*	*29.6*	*2,147*	*2,292*	*353*
General	1,440	8.9	633	636	171
Academic affairs	1,009	6.2	287	661	61
Student services	1,357	8.4	489	747	121
Business affairs	986	6.1	738	248	0
Academic					
Total	*9,987*	*61.6*	*1,599*	*7,719*	*669*
Agriculture and forestry	88	.6	0	53	35
Biological sciences	573	3.5	17	556	0
Business and commerce	1,912	11.8	754	1,158	0
Education	1,371	8.5	293	999	79
Engineering (including architecture)	123	.8	0	123	0
English and journalism	1,386	8.6	78	1,229	79
Fine and applied arts	805	5.0	17	770	18
Foreign languages	470	2.9	18	375	77
Geography	17	.1	0	17	0
Health professions	88	.6	0	88	0
Home economics	118	.7	17	101	0
Law	0	0	0	0	0
Library science	0	0	0	0	0
Mathematical subjects	584	3.6	138	403	43
Philosophy	189	1.2	0	128	61
Physical sciences	697	4.3	78	559	60
Psychology	268	1.7	43	164	61
Religion	214	1.3	86	128	0
Basic social sciences	979	6.1	43	780	156
Applied social sciences	0	0	0	0	0
All other	105	.7	17	88	0
Technical and Semiprofessional					
Total	*1,434*	*8.8*	*525*	*856*	*53*
Engineering-related	560	3.5	270	280	0
Nonengineering-related	874	5.4	245	576	63

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by *large field* and by degree; and estimated number and percent needed for large field: *2-year institutions* (junior colleges, technical schools, and *under 100*, aggregate United States

Staff, October 1963—Continued			Estimated further staff needs, November 1963–October 1969					
Percent, by degree			Total		Number		Percent	
Bachelor's	Master's	Doctor's	Number	Percent	Replacements	Additions	Replacements	Additions
7	8	9	10	11	12	13	14	15
26.3	67.0	6.6	18,036	100.0	3,391	14,645	18.8	81.2
44.8	*47.8*	*7.4*	*4,889*	*27.1*	*1,104*	*3,785*	*22.6*	*77.4*
44.0	44.2	11.9	1,521	8.4	443	1,078	29.1	70.9
28.4	65.5	6.0	824	4.6	156	668	18.9	81.1
36.0	55.0	8.9	1,384	7.7	252	1,132	18.2	81.8
74.8	25.2	0	1,160	6.4	253	907	21.8	79.2
16.0	*77.8*	*6.7*	*11,043*	*61.2*	*1,971*	*9,072*	*17.8*	*82.2*
0	60.2	39.8	34	.2	0	34	0	100.0
3.0	97.0	0	518	2.9	89	429	17.2	82.8
39.4	60.6	0	1,888	10.5	471	1,417	24.9	75.1
21.4	72.9	5.8	1,063	5.9	139	924	13.4	86.9
0	100.0	0	210	1.2	18	192	8.6	91.4
5.6	88.7	5.7	1,297	7.2	275	1,022	21.3	78.8
2.1	95.7	2.2	1,127	6.3	244	883	21.7	78.3
3.8	79.8	16.4	696	3.9	140	556	20.1	79.5
0	100.0	0	87	.5	17	70	19.5	80.5
0	100.0	0	251	1.4	35	216	13.9	86.1
14.4	85.6	0	113	.6	60	53	53.1	46.9
0	0	0	0	0	0	0	0	0
0	0	0	43	.2	0	43	0	100.0
23.6	69.0	7.4	704	3.9	112	592	15.9	84.1
0	67.7	32.3	248	1.4	42	206	16.9	83.1
11.2	80.2	8.6	854	4.7	191	663	22.4	77.6
16.0	61.2	22.8	313	1.7	43	270	13.7	86.3
40.2	59.8	0	275	1.5	43	232	15.6	84.4
4.4	79.7	15.9	1,088	6.0	52	1,036	4.8	95.2
0	0	0	42	.2	0	42	0	100.0
16.2	83.8	0	174	1.0	0	174	0	100.0
36.6	*59.7*	*3.7*	*2,104*	*11.7*	*316*	*1,788*	*15.0*	*85.0*
50.0	50.0	0	895	5.0	87	808	9.7	90.3
28.0	65.9	6.1	1,209	6.7	229	980	19.8	81.1

Table 35.—Number and percent of *part-time* professional staff, by *large field institutions* (junior colleges, technical schools, and semiprofessional United States, October 1963

Field	Part-time staff	
	Total	
	Number	Percent
1	2	3
Total, all fields	6,923	100.0
Administrative		
Total	*1,311*	*8.*
General	533	7.7
Academic affairs	190	2.8
Student services	353	5.1
Business affairs	235	3.4
Academic		
Total	*5,347*	*77.2*
Agriculture and forestry	0	0
Biological sciences	165	2.4
Business and commerce	969	14.0
Education	193	2.8
Engineering (including architecture)	86	1.2
English and journalism	418	6.0
Fine and applied arts	830	12.0
Foreign languages	477	6.9
Geography	18	.3
Health professions	0	0
Home economics	35	.5
Law	0	0
Library science	43	.6
Mathematical subjects	399	5.8
Philosophy	138	2.0
Physical sciences	531	7.7
Psychology	254	3.7
Religion	206	3.0
Basic social sciences	567	8.2
Applied social sciences	0	0
All other	18	.3
Technical and Semiprofessional		
Total	*265*	*3.8*
Engineering-related	176	2.5
Nonengineering-related	89	1.3

and by degree; total, and part-time as percent of total, by large field: *2-year* schools) with faculty and other professional staff of *under 100*, aggregate

Part-time staff—Continued						Total staff	Part-time as percent of total
Number by degree			Percent by degree				
Bachelor's	Master's	Doctor's	Bachelor's	Master's	Doctor's		
4	5	6	7	8	9	10	11
2,009	**4,473**	**441**	**29.0**	**64.6**	**6.4**	**23,136**	**29.9**
484	*784*	*43*	*36.9*	*5.98*	*3.3*	*6,103*	*21.5*
189	344	0	35.5	64.5	0	1,973	27.0
17	173	0	8.9	91.1	0	1,199	15.8
43	267	43	12.2	75.6	12.2	1,710	20.6
235	0	0	100.0	0	0	1,221	19.2
1,313	*3,636*	*398*	*24.6*	*68.0*	*7.4*	*15,334*	*34.9*
0	0	0	0	0	0	88	0
0	165	0	0	100.0	0	738	32.4
260	587	122	26.8	60.6	12.6	2,881	33.6
122	71	0	63.2	36.8	0	1,564	12.3
17	69	0	19.8	80.2	0	209	41.1
138	237	43	33.0	56.7	10.3	1,804	23.2
404	408	18	48.7	49.1	2.2	1,635	50.8
174	303	0	36.5	63.5	0	947	50.4
0	18	0	0	100.0	0	35	51.4
0	0	0	0	0	0	88	0
17	18	0	48.6	51.4	0	153	2.99
0	0	0	0	0	0		
43	0	0	100.0	0	0	43	100.0
17	339	43	4.2	85.0	10.8	983	40.6
0	78	60	0	56.5	43.5	327	42.2
60	419	52	11.3	78.9	9.8	1,228	43.2
	236	18	0	92.9	7.1	522	48.7
43	121	42	20.9	58.7	20.4	420	49.0
0	567	0	0	100.0	0	1,546	36.7
0	0	0	0	0	0	0	0
18	0	0	100.0	0	0	123	14.6
212	*53*	*0*	*80.0*	*20.0*	*0*	*1,699*	*15.6*
123	53	0	69.9	30.1	0	736	23.9
89	0	0	100.0	0	0	963	9.2

Table 36.—Total, full-, and part-time enrollment, October 1963: institutions' projections for October 1969; and projected 1963–69 percent increase in seven selected types (three groups) of institutions, by institutional grouping and by size of faculty and other professional staff

Kind of enrollment	Otober 1963 (actual)	October 1969 (projected)	Percent increase 1963–69 (projected)	October 1963 (actual)	October 1969 (projected)	Percent increase 1963–69 (projected)
1	2	3	4	5	6	7
	GROUP I: UNIVERSITIES AND TECHNOLOGICAL SCHOOLS					
	Faculty and Other Professional Staff 1,500 and over			*Faculty and Other Professional Staff Under 1,500*		
Total	*749,947*	*1,035,301*	*38.1*	*1,123,111*	*1,654,340*	*47.3*
Full-time	532,623	755,192	41.8	815,658	1,222,821	49.9
Part-time	217,324	280,109	28.9	307,453	431,519	40.4
	GROUP II: LIBERAL ARTS COLLEGES AND TEACHERS COLLEGES					
	Faculty and Other Professional Staff 150 and Over			*Faculty and Other Professional Staff Under 150*		
Total	*1,025,124*	*1,550,516*	*51.3*	*623,152*	*892,485*	*43.2*
Full-time	699,259	1,059,050	51.5	521,166	763,146	46.4
Part-time	325,865	491,466	50.8	101,986	129,339	26.8
	GROUP III: 2-Year INSTITUTIONS **(Junior Colleges, technical schools, and semiprofessional schools)**					
	Faculty and Other Professional Staff 100 and Over			*Faculty and Other Professional Staff Under 100*		
Total	*511,317*	*1,283,142*	*150.9*	*330,246*	*614,471*	*86.1*
Full-time	200,401	654,147	226.4	216,314	381,771	76.6
Part-time	310,916	628,995	102.3	114,112	232,700	103.9

Table 37.—Percent distribution of answers given by 330 institutions of 7 selected types (3 groups) to 11 assumptions, by institutional grouping and by size of faculty and other professional staff: Aggregate United States, 1963–64 through 1969–70

Assumption concerning—	Percent distribution							
	Will increase	Will decrease	Will remain about the same	Institution made no assumption	Will increase	Will decrease	Will remain about the same	Institution made no assumption
1	2	3	4	5	6	7	8	9
	GROUP I: UNIVERSITIES AND TECHNOLOGICAL SCHOOLS [1]							
	Faculty and Other Professional Staff 1,500 and over [2]				*Faculty and Other Professional Staff under 1,500* [3]			
1. Class size	42.2	1.6	53.1	3.1	60.2	.8	37.4	1.6
2. Number of students per professional staff member	32.8	10.9	54.7	1.6	55.3	10.6	31.7	2.4
3. Number of semester or quarter hours comprising full-tine teaching load	0	26.6	67.2	6.2	.8	32.5	60.2	6.5
4. Percentage of total professional staff time devoted to research	60.9	0	36.0	3.1	61.8	.8	30.1	7.3
5. Percentage of total professional staff time devoted to administration	12.5	3.1	81.3	3.1	22.0	8.9	66.7	2.4

See footnotes at end of table.

Table 37.—Percent distribution of answers given by 330 institutions of 7 selected types (3 groups) to 11 assumptions, by institutional grouping and by size of faculty and other professional staff: Aggregate United States, 1963–64 through 1969–70—Con.

Assumption concerning—	Percent distribution							
	Will increase	Will decrease	Will remain about the same	Institution made no assumption	Will increase	Will decrease	Will remain about the same	Institution made no assumption
1	2	3	4	5	6	7	8	9
	GROUP I: UNIVERSITIES AND TECHNOLOGICAL SCHOOLS [1]—Continued							
	Faculty and Other Professional Staff 1,500 and over [2]				*Faculty and Other Professional Staff under 1,500* [3]			
6. Changes in institutional policies and practices regarding salaries, promotions, tenure, retirement, and "fringe benefits" affecting the attractiveness of an academic career and thus causing faculty turnover	4.7	32.8	59.4	3.1	.8	42.3	49.6	7.3
7. Percentage of professional staff employed on part-time basis	10.9	17.2	67.2	4.7	17.9	17.1	59.3	5.7
8. Usual retirement age for professional staff	9.4	0	89.0	1.6	5.7	4.9	87.8	1.6
9. Percentage of professional staff who are women	43.8	0	45.3	10.9	43.1	3.2	42.3	11.4
10. Level of preparation of new faculty	9.4	10.9	71.9	7.8	48.0	6.5	44.7	.8
11. Number of weeks for which faculty is employed during the calendar year (at the responding institution itself)	25.0	0	70.3	4.7	17.9	4.1	73.9	4.1

	GROUP II: LIBERAL ARTS COLLEGES AND TEACHERS COLLEGES [4]							
	Faculty and Other Professional Staff 150 and over [5]				*Faculty and Other Professional Staff under 150* [6]			
1. Class size	50.9	3.5	40.3	5.3	63.3	2.0	32.7	2.0
2. Number of students per professional staff member	40.3	7.0	48.4	5.3	55.1	2.0	38.8	4.1
3. Number of semester or quarter hours comprising full-time teaching load	0	26.3	66.7	7.0	6.1	4.1	85.7	4.1
4. Percentage of total professional staff time devoted to research	47.4	0	36.8	15.8	28.6	2.0	36.7	32.7
5. Percentage of total professional staff time devoted to administration	22.8	15.8	56.1	5.3	22.4	14.3	55.1	8.2
6. Changes in institutional policies and practices regarding salaries, promotions, tenure, retirement, and "fringe benefits" affecting the attractiveness of an academic career and thus causing faculty turnover	7.0	38.6	52.6	1.8	8.1	34.7	42.9	14.3
7. Percentage of professional staff employed on part-time basis	19.3	24.6	54.4	1.7	8.1	28.6	59.2	4.1
8. Usual retirement age for professional staff	7.0	3.5	82.5	7.0	6.1	0	79.6	14.3
9. Percentage of professional staff who are women	35.1	1.7	54.4	8.8	26.5	4.1	53.1	16.3
10. Level of preparation of new faculty	38.6	5.3	49.1	7.0	63.3	2.0	30.6	4.1
11. Number of weeks for which faculty is employed during the calendar year (at the responding institution itself)	17.5	1.8	71.9	8.8	24.5	0	69.4	6.1

See footnotes at end of table.

Table 37.—Percent distribution of answers given by 330 institutions of 7 selected types (3 groups) to 11 assumptions, by institutional grouping and by size of faculty and other professional staff: Aggregate United States, 1963–64 through 1969–70—Con.

Assumption concerning—	Percent distribution							
	Will increase	Will decrease	Will remain about the same	Institution made no assumption	Will increase	Will decrease	Will remain about the same	Institution made no assumption
1	2	3	4	5	6	7	8	9
	GROUP III: 2-Year INSTITUTIONS **(Junior colleges, technical schools, and semiprofessional schools)**[7]							
	Faculty and Other Professional Staff 100 and over [8]				*Faculty and Other Professional Staff under 100* [9]			
1. Class size	26.7	6.7	66.6	0	54.5	0	45.5	0
2. Number of students per professional staff member	20.0	20.0	60.0	0	50.0	4.6	45.4	0
3. Number of semester or quarter hours comprising full-time teaching load	0	13.3	86.7	0	4.6	9.1	86.3	0
4. Percentage of total professional staff time devoted to research	26.7	0	60.0	13.3	31.8	0	31.8	36.4
5. Percentage of total professional staff time devoted to administration	26.7	13.3	60.0	0	54.5	9.1	36.4	0

6. Changes in institutional policies and practices regarding salaries, promotions, tenure, retirement, and "fringe benefits" affecting the attractiveness of an academic career and thus causing faculty turnover	0	26.7	73.3	0	18.2	31.8	45.4	4.6
7. Percentage of professional staff employed on part-time basis	6.7	13.3	80.0	0	31.8	18.2	45.4	4.6
8. Usual retirement age for professional staff	0	6.7	93.3	0	0	0	95.4	4.6
9. Percentage of professional staff who are women	26.7	6.7	53.3	13.3	18.1	4.6	72.7	4.6
10. Level of preparation of new faculty	53.3	0	46.7	0	50.0	0	50.0	0
11. Number of weeks for which faculty is employed during the calendar year (at the responding institution itself)	26.7	6.7	66.6	0	27.3	0	63.6	9.1

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[1] 187 institutions.
[2] 64 institutions.
[3] 123 institutions.
[4] 106 institutions.
[5] 57 institutions.
[6] 49 institutions.
[7] 37 institutions.
[8] 15 institutions.
[9] 22 institutions.

Regional Totals

The implications of the findings from this study are deemed of such importance to each of the four regions that each regional table presents these findings in the greatest detail available. An assumption underlying this position is that supply-and-demand factors in the academic marketplace are operative at a significant level within each region. Furthermore, it is assumed that this condition will prevail through the 6 years covered by the study. If these assumptions are correct, then the continued availability of highly qualified staff in a region will depend to a considerable extent on the effective educational leadership exercised within that region in the support of graduate and professional schools.

The tabulation below summarizes certain findings from the tables, which then follow.

Item and Year	*Region* *I* [1]	*II* [2]	*III* [3]	*IV* [4]
FULL-TIME STAFF				
Total:				
1963 [5]	80,460	73,341	50,959	59,853
1969 [6]	130,038	113,546	75,706	93,023
Percent for field:				
Administrative				
1963 [5]	19.3	18.5	22.0	15.9
1969 [6]	18.1	17.6	21.7	14.7
Academic				
1963 [5]	77.1	80.4	76.2	82.1
1969 [6]	78.0	80.0	76.3	82.6
Technical and semiprofessional				
1963 [5]	3.6	1.1	1.8	2.0
1969 [6]	3.9	2.4	2.0	2.7
Percent of national total:				
1963 [5]	30.4	27.7	19.3	22.6
1969 [6]	31.5	27.5	18.4	22.6
Percent holding doctorate:				
1963 [5]	44.1	43.1	34.0	40.7
1969	--------	--------	-------	---------
ENROLLMENT				
Total:				
1963 [5]	1,289,469	1,259,303	669,618	1,144,507
1969 [6]	2,247,948	2,015,719	987,137	1,777,451
Percent of national total:				
1963 [5]	29.6	29.6	15.3	26.2
1969 [6]	32.0	28.7	14.0	25.3

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[1] *Northeast:* Connecticut, Delaware, District of Columbia, Maine, Maryland, Massacchusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont.

[2] *Great Lakes and Plains:* Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin.

[3] *Southeast:* Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, and West Virginia.

[4] *West and Southwest:* Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oklahoma, Oregon, Texas, Utah, Washington, and Wyoming.

[5] Actual figures.

[6] Projected figures.

Table 38.—Number and percent of *full- and part-time* professional staff, by institutions of seven selected types (three

Field	Full-time						
	Number, by degree				Percent, by degree		
	Total	Bachelor's	Master's	Doctor's	Bachelor's	Master's	Doctor's
1	2	3	4	5	6	7	8
Total, all fields	**80,460**	**14,457**	**30,534**	**35,469**	**18.0**	**37.9**	**44.1**
Administrative							
Total	*15,527*	*7,378*	*5,735*	*2,414*	*47.5*	*36.9*	*15.6*
General	4,481	2,214	1,505	762	49.4	33.6	17.0
Academic affairs	4,546	1,360	2,399	787	29.9	52.8	17.3
Student services	3,664	1,509	1,348	807	41.2	36.8	22.0
Business affairs	2,836	2,295	483	58	80.9	17.0	2.1
Academic							
Total	*62,059*	*5,787*	*23,316*	*32,956*	*9.3*	*37.6*	*53.1*
Agriculture and forestry	745	56	225	464	7.5	30.2	62.3
Biological sciences	4,799	159	948	3,692	3.3	19.8	76.9
Business and commerce	2,327	495	1,115	717	21.3	47.9	30.8
Education	8,156	894	4,480	2,782	11.0	54.9	34.1
Engineering (including architecture)	4,530	1,195	1,656	1,679	26.4	36.6	37.0
English and journalism	5,369	301	2,313	2,755	5.6	43.1	51.3
Fine and applied arts	3,999	509	2,295	1,195	12.7	57.4	29.9
Foreign languages	4,539	338	1,678	2,478	8.4	37.0	54.6
Geography	532	6	254	272	1.1	47.8	51.1
Health professions	4,728	250	880	3,598	5.3	18.6	76.1
Home economics	359	34	228	97	9.5	63.5	27.0
Law	380	153	148	79	40.3	38.9	20.8
Library science	132	5	81	46	3.8	61.4	34.8
Mathematical subjects	3,374	299	1,569	1,506	8.9	46.5	44.6
Philosophy	1,306	46	409	851	3.5	31.3	65.2
Physical sciences	6,210	593	1,633	3,984	9.5	22.3	64.2
Psychology	2,079	59	438	1,582	2.8	21.1	76.1
Religion	1,004	39	445	520	3.9	44.3	51.8
Basic social sciences	7,031	267	2,265	4,499	3.8	32.2	64.0
Applied social sciences	427	22	248	157	5.2	58.1	36.7
All other	33	22	8	3	66.7	24.2	9.1
Technical and Semiprofessional							
Total	*2,874*	*1,292*	*1,483*	*99*	*45.0*	*51.6*	*3.4*
Engineering-related	733	553	178	2	75.4	24.3	.3
Nonengineering-related	2,141	739	1,305	97	34.5	61.0	4.5

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[1] *Group I:* Universities and technological schools; *Group II:* Liberal arts colleges and teachers colleges; *Group III:* 2-year institutions—junior colleges, technical schools, and semiprofessional schools.

***large field* and by degree; total, and part-time as percent of total, in groups),[1] by large field: Region I,[2] October 1963**

Part-time							Total	Part-time as percent of total
Number, by degree				Percent, by degree				
Total	Bachelor's	Master's	Doctor's	Bachelor's	Master's	Doctor's		
9	10	11	12	13	14	15	16	17
31,845	**5,950**	**13,089**	**12,806**	**18.7**	**41.1**	**40.2**	**112,305**	**28.4**
2,297	*758*	*870*	*669*	*33.0*	*37.9*	*29.1*	*17,824*	*12.9*
577	254	269	54	44.0	46.6	9.4	5,058	11.4
338	133	159	46	39.4	47.0	13.6	4,884	6.9
1,203	268	387	548	22.3	32.2	45.5	4,867	24.7
179	103	55	21	57.6	30.7	11.7	3,015	5.9
28,332	*4,613*	*11,668*	*12,051*	*16.3*	*41.2*	*42.5*	*90,391*	*31.3*
40	10	21	9	25.0	52.5	22.5	785	5.1
1,219	150	300	760	12.4	24.8	62.8	6,009	20.1
2,455	760	1,421	274	31.0	57.9	11.1	4,782	51.3
3,078	465	1,792	821	15.1	58.2	26.7	11,234	27.4
1,193	415	496	282	34.8	41.6	23.6	5,723	20.8
1,860	279	1,210	371	15.0	65.1	19.9	7,229	25.7
1,817	791	819	207	43.5	45.1	11.4	5,816	31.2
1,548	307	871	370	19.8	56.3	23.9	6,087	25.4
119	8	56	55	6.7	47.1	46.2	651	18.3
6,442	108	168	6,166	1.7	2.6	95.7	11,170	57.7
112	28	64	20	25.0	57.1	17.9	471	23.8
240	145	81	14	60.4	33.8	5.8	620	38.7
79	8	66	5	10.1	83.5	6.4	211	37.4
1,777	318	1,183	276	17.9	66.6	15.5	5,151	34.5
429	43	205	181	10.0	47.8	42.2	1,735	24.7
1,488	314	702	472	21.1	47.2	31.7	7,698	19.3
1,072	76	325	671	7.1	30.3	62.6	3,151	34.0
451	64	188	199	14.2	41.7	44.1	1,455	31.0
2,647	250	1,569	828	9.4	59.3	31.3	9,678	27.4
195	18	113	64	9.2	58.0	32.8	622	31.4
80	56	18	6	70.0	22.5	7.5	113	70.8
1,216	*579*	*551*	*86*	*47.6*	*45.3*	*7.1*	*4,090*	*29.7*
595	264	264	67	55.5	44.4	11.2	1,328	44.8
621	315	287	19	50.7	46.2	3.1	2,762	22.5

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[2] Connecticut, Delaware, District of Columbia, Maine, Maryland, Massachusetts New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island. and Vermont.

Table 39.—Number and percent of *full- and part-time* professional staff, October 1963, by *detailed field* and by degree; and estimated number needed for *full-time* replacements and additions, November 1963–October 1969, by *detailed field:* Institutions of seven selected types (three groups):[1] *Region I*[0]

Field	Staff, October 1963										Estimated further full-time staff needed November 1963–October 1969		
	Full-time					Part-time							
	Total		Bachelor's	Master's	Doctor's	Total		Bachelor's	Master's	Doctor's	Total	Replacements	Additions
	Number	Percent				Number	Percent						
1	2	3	4	5	6	7	8	9	10	11	12	13	14
SUMMARY													
Grand total, all fields	80,460	100.0	14,457	30,534	35,469	31,845	100.0	5,950	13,089	12,806	67,026	17,448	49,578
Total, administrative	15,527	19.3	7,378	5,735	2,414	2,297	7.2	758	870	669	11,182	3,233	7,949
Total, academic	62,059	77.1	5,787	23,316	32,956	28,332	89.0	4,613	11,668	12,051	53,026	13,639	39,387
Total, technical and semiprofessional	2,874	3.6	1,292	1,483	99	1,216	3.8	579	551	86	2,818	576	2,242
ADMINISTRATIVE FIELDS[2]													
Total	15,527	100.0	7,378	5,735	2,414	2,297	100.0	758	870	669	11,182	3,233	7,949
General													
Total	*4,481*	*28.9*	*2,214*	*1,505*	*762*	*577*	*25.1*	*254*	*269*	*54*	*2,749*	*891*	*1,858*
Chief administrative officer	551	3.5	100	124	327	98	4.3	44	43	11	180	168	12
Officers for public relations, planning and development, alumni, etc.	1,263	8.1	786	380	97	135	5.9	106	11	18	901	210	691

Admissions and recruitment officers	981	6.3	453	410	118	161	7.0	44	102	15	813	250	563
Registrars and assistant registrars [3]	717	4.6	339	268	60	55	2.4	6	45	4	525	159	366
Other	969	6.2	486	323	160	128	5.6	54	68	6	330	104	226
Academic Affairs													
Total	*4,546*	*29.3*	*1,360*	*2,399*	*787*	*338*	*14,7*	*133*	*159*	*46*	*3,283*	*862*	*2;421*
Chief academic officer, academic vice-president, dean of faculties, academic dean, dean of instruction, etc.[4]	621	4.0	95	185	341	34	1.5	2	16	16	352	140	212
Graduate dean and assistant graduate deans	203	1.3	4	24	175	19	.8	0	4	15	171	40	131
Librarian [5]	3,050	19.6	1,008	1,927	115	261	11.4	115	132	14	2,306	590	1,716
Other	672	4.3	253	263	156	24	1.0	16	7	1	454	92	362
Student Services													
Total	*3,664*	*23.6*	*1,509*	*1,348*	*807*	*1,203*	*52.4*	*268*	*387*	*548*	*3,096*	*936*	*2,160*
Chief student services officer [6]	373	2.4	35	175	163	11	.5	1	10	0	201	75	126
Assistant student services officers [7]	930	6.0	225	669	45	99	4.3	46	45	8	680	211	469
Counseling, advisory, and testing personnel	765	4.9	140	325	300	338	14.7	57	194	87	1,086	232	854
Health services personnel [8]	1,150	7.4	854	46	250	534	23.2	89	4	441	794	303	491
Other	446	2.9	255	142	49	221	9.6	75	134	12	335	115	220
Business Affairs													
Total	*2,836*	*18.2*	*2,295*	*483*	*58*	*179*	*7,8*	*105*	*55*	*21*	*2,054*	*544*	*1,510*
Chief business officer	490	3.2	232	266	32	23	1.0	12	11	0	197	111	86
Accounting and purchasing officers	679	4.5	580	85	14	14	.6	2	12	0	423	81	342
Physical plant management staff (including engineers)	495	3.2	451	42	2	25	1.1	21	3	1	516	95	421
Auxiliary services management staff [9]	707	4.6	649	56	2	103	4.5	60	25	18	630	171	459
Other	465	3.0	383	74	8	14	.6	8	4	2	288	86	202
Total	62,059	100.0	5,787	23,316	32,956	28,332	100.0	4,613	11,668	12,051	53,026	13,639	39,387
	ACADEMIC FIELDS [10]												
Agriculture **(*Includes agricultural economics and agricultural engineering*)** [11]													
Total	*675*	*1.1*	*53*	*193*	*429*	*29*	*.1*	*10*	*10*	*9*	*186*	*113*	*73*

See footnotes at end of table.

Table 39.—Number and percent of *full- and part-time* professional staff, October 1963, by *detailed field* and by degree; and estimated number needed for *full-time* replacements and additions, November 1963–October 1969, by *detailed field:* Institutions of seven selected types (three groups):[1] *Region I*[9]—Continued

Field	Staff, October 1963										Estimated further full-time staff needed November 1963–October 1969		
	Full-time					Part-time							
	Total		Bachelor's	Master's	Doctor's	Total		Bachelor's	Master's	Doctor's	Total	Replacements	Additions
	Number	Percent				Number	Percent						
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	ACADEMIC FIELDS [10]—Continued												
Architecture ***(Includes architectural engineering)***													
Total	*224*	*.4*	*86*	*117*	*21*	*134*	*.5*	*72*	*47*	*15*	*108*	*40*	*68*
Biological Sciences ***(Includes all "basic sciences" of the health professions)***													
Total	*4,799*	*7.7*	*159*	*948*	*3,692*	*1,210*	*4.3*	*150*	*300*	*760*	*3,672*	*946*	*2,726*
General biology	1,197	1.8	39	440	718	395	1.4	83	191	121	1,294	284	1,100
General botany	302	.5	6	67	229	64	.2	16	8	40	231	57	174
General zoology	423	.7	5	142	276	57	.2	10	24	23	279	81	198
Anatomy and histology	391	.6	6	97	288	52	.2	6	3	43	302	90	212
Bactriology, microbiology, mycology, parasitology, and virology	508	.8	15	45	448	82	.3	5	28	49	294	86	208

Biochemistry	394	.6	13	26	355	78	.3	5	5	68	291	66	225
Pathology[12]	270	.4	5	13	252	216	.8	2	7	207	126	44	82
Pharmacology	174	.3	12	6	156	55	.2	4	2	49	91	35	56
Physiology[13]	359	.6	5	25	329	124	.4	9	23	92	289	69	220
Biophysics, cytology, ecology, embryology, entomology, genetics, plant pathology, plant physiology, and other biological sciences[14]	781	1.3	53	87	641	87	.3	10	9	68	475	134	341
Business and Commerce													
Total	*2,327*	*3.7*	*495*	*1,115*	*717*	*2,455*	*8.7*	*760*	*1,421*	*274*	*2,532*	*577*	*1,955*
Accounting, auditing, and taxation	671	1.1	146	396	129	772	2.7	231	508	33	793	159	634
Finance, investments, and law[15]	354	.6	59	156	139	414	1.5	187	182	45	425	120	305
Secretarial studies	285	.5	208	64	13	119	.4	28	71	20	239	102	137
Marketing, retailing, wholesaling, and advertising	341	.5	30	190	121	390	1.4	119	234	37	390	67	323
Personnel management and industrial relations	206	.3	17	107	82	180	.6	69	85	26	311	57	254
Business and commerce, general, and not otherwise classified	470	.8	35	202	233	580	2.0	126	341	113	374	72	302
Education													
Total	*8,156*	*13.1*	*894*	*4,480*	*2,782*	*3,078*	*10.9*	*465*	*1,798*	*821*	*6,394*	*1,738*	*4,656*
Health education, physical education, and recreation (including athletic coaches)	2,593	4.2	705	1,573	315	470	1.7	243	166	61	2,080	543	1,537
Educational psychology (including special education, educational counseling, and guidance)	778	1.3	10	184	584	507	1.8	27	260	220	780	225	555
Industrial arts education and trade and industrial education[16]	394	.6	3	253	138	74	.3	48	21	5	267	73	294
Elementary education, nursery and kindergarten, and early chilkhood education (including art education and music education)	1,938	3.1	91	1,442	405	769	2.7	37	651	81	1,340	515	825
Secondary education (including junior high school)[17]	1,473	2.4	13	677	783	577	2.0	54	386	137	1,081	220	861

See footnotes at end of table.

Table 39.—Number and percent of *full- and part-time* professional staff, October 1963, by *detailed field* and by degree; and estimated number needed for *full-time* replacements and additions, November 1963–October 1969, by *detailed field:* Institutions of seven selected types (three groups):[1] *Region I* [0]—Continued

Field	Staff, October 1963										Estimated further full-time staff needed November 1963–October 1969		
	Full-time					Part-time							
	Total		Bachelor's	Master's	Doctor's	Total		Bachelor's	Master's	Doctor's	Total	Replacements	Additions
	Number	Percent				Number	Percent						
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	ACADEMIC FIELDS —Continued												
Education—Continued													
Educational administration and supervision and educational finance (both elementary and secondary)	306	.5	46	48	212	390	1.4	36	143	211	195	66	129
Higher education (including junior college)	100	.2	0	3	97	57	.2	1	22	34	54	7	47
Other [18]	574	.9	26	300	248	234	.8	19	143	72	497	89	408
Engineering													
Total	*4,306*	*6.9*	*1,109*	*1,539*	*1,658*	*1,059*	*3.7*	*343*	*449*	*267*	*2,759*	*980*	*1,779*
Aeronautical (including aerospace)	210	.3	53	52	105	25	.1	3	9	13	98	37	61
Chemical	339	.5	36	66	237	56	.2	16	18	22	186	53	133
Civil	502	.8	67	244	191	133	.5	54	59	20	260	98	162
Electrical	1,541	2.5	492	527	522	375	1.3	133	152	90	928	413	515
Mechanical	985	1.6	237	409	339	242	.9	87	111	44	527	218	309
Other [19]	729	1.2	224	241	264	228	.8	50	100	78	760	161	599

English and Journalism													
Total	*5,369*	*8.7*	*301*	*2,313*	*2,755*	*1,860*	*6.6*	*279*	*1,210*	*371*	*5,445*	*1,276*	*4,169*
English and literature (including comparative literature)	5,266	8.5	283	2,258	2,725	1,777	6.3	250	1,160	367	5,273	1,260	4,013
Journalism	103	.2	18	55	30	83	.3	29	50	4	172	16	156
Fine and Applied Arts													
Total	*3,999*	*6.4*	*509*	*2,295*	*1,195*	*1,817*	*6.4*	*791*	*819*	*207*	*3,803*	*774*	*3,029*
Art, general	1,076	1.7	214	594	268	610	2.2	294	283	33	1,072	249	823
Music (including sacred music)	1,346	2.2	149	833	364	541	1.9	280	187	74	1,132	219	913
Speech and dramatic arts (including speech correction)	1,282	2.1	87	733	462	526	1.9	135	307	84	1,374	235	1,139
Other [20]	295	.5	59	135	101	140	.5	82	42	16	225	71	154
Foreign Languages, Linguistics, and Literature													
Total	*4,539*	*7.3*	*383*	*1,678*	*2,478*	*1,548*	*5.5*	*307*	*871*	*370*	*4,427*	*1,078*	*3,349*
Latin, Greek, and Hebrew	611	1.0	25	210	376	214	.8	20	144	50	305	113	192
French (including philology and literature)	1,579	2.5	157	679	743	474	1.7	57	336	81	1,468	387	1,081
Spanish (including philology and literature)	936	1.5	65	373	498	340	1.2	67	183	90	1,005	245	760
Germanic languages (including philology and literature)	807	1.3	48	227	532	257	.9	79	102	76	879	198	681
Russian and other Slavic languages (including philology and literature)	294	.5	62	107	125	158	.6	58	63	37	447	82	365
Other [21]	312	.5	26	82	204	105	.4	26	43	36	323	53	270
Forestry													
Total	*70*	*.1*	*3*	*32*	*35*	*11*	*.0*	*0*	*11*	*0*	*34*	*17*	*17*
Geography													
Total	*532*	*.9*	*6*	*254*	*272*	*119*	*.4*	*8*	*56*	*55*	*452*	*61*	*391*
Health Professions [22]													
Total	*4,728*	*7.6*	*250*	*380*	*3,598*	*6,442*	*22.7*	*108*	*168*	*6,166*	*2,732*	*869*	*1,863*
Medical and dental technologies and medical therapies [23]	64	.1	6	42	16	44	.2	12	5	27	78	11	67

See footnotes at end of table.

Table 39.—Number and percent of *full- and part-time* professional staff, October 1963, by ***detailed field*** and by degree; and estimated number needed for *full-time* replacements and additions, November 1963–October 1969, by ***detailed field:*** Institutions of seven selected types (three groups):[1] *Region I*[1]—Continued

Field	Staff, October 1963										Estimated further full-time staff needed November 1963–October 1969		
	Full-time					Part-time							
	Total		Bachelor's	Master's	Doctor's	Total		Bachelor's	Master's	Doctor's	Total	Replacements	Additions
	Number	Percent				Number	Percent						
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	ACADEMIC FIELDS[10]—Continued												
Health Professions[11]—Continued													
Dentistry, D.D.S. and D.M.D. (including graduate specialties)	339	.5	12	2	325	905	3.2	8	7	890	185	106	79
Medical specialites (including dermatology; internal medicine including allergy, cardiovascular disease, gastroenterology and pulmonary diseases; and pediatrics)	1,070	1.7	12	29	1,029	1,838	6.5	9	16	1,813	392	171	221
Surgical specialities (including anesthesiology, colon and rectal surgery, general surgery, neurological surgery, obstetrics and gynecology, ophthalmology, orthopedic surgery, otolaryngology, plastic surgery, thoracic surgery, and urology)	778	1.3	24	35	719	1,512	5.3	12	6	1,494	306	142	164

Psychiatry and neurology	584	.9	12	42	530	841	2.7	2	21	818	196	99	97
Other specialities (including administrative medicine, physical medicine and rehabilitation. preventive medicine, and radiology)	515	.8	23	52	440	932	3.3	5	10	917	244	100	144
Nursing [24]	778	1.3	112	589	77	81	.3	14	56	11	1,076	148	928
Pharmacy	194	.3	33	42	119	70	.2	24	24	22	115	60	55
Public health	287	.5	13	40	234	112	.4	8	14	90	92	21	71
Veterinary medicine, D.V.M. (including clinical veterinary medical sciences)	93	.1	3	1	89	82	.3	12	3	67	38	8	30
Pediatry, optometry, osteopathy, hospital administration, and other health professions	26	.0	0	6	20	25	.1	2	6	17	10	3	7
Home Economics [25]													
Total	*359*	*.6*	*34*	*228*	*97*	*112*	*.4*	*28*	*64*	*20*	*238*	*119*	*119*
Law													
Total	*380*	*.6*	*153*	*148*	*79*	*240*	*.8*	*145*	*81*	*14*	*171*	*78*	*93*
Library Science													
Total	*132*	*.2*	*5*	*81*	*46*	*79*	*.3*	*8*	*66*	*5*	*119*	*26*	*93*
Mathematical Subjects													
Total	*3,374*	*5.4*	*299*	*1,569*	*1,506*	*1,777*	*6.3*	*318*	*1,183*	*276*	*3,529*	*912*	*2,617*
Mathematics	3,275	5.3	291	1,546	1,438	1,693	6.0	305	1,148	240	3,439	890	2,549
Statistics (including actuarial science)	99	.2	8	23	68	84	.3	13	35	36	90	22	68
Philosophy *(Includes scholastic philosophy)*													
Total	*1,306*	*2.1*	*46*	*409*	*851*	*429*	*1.5*	*43*	*205*	*181*	*1,307*	*389*	*918*
Physical Sciences													
Total	*6,210*	*10.0*	*593*	*1,633*	*3,984*	*1,488*	*5.3*	*314*	*702*	*472*	*5,417*	*1,249*	*4,168*
Chemistry [26]	2,453	4.0	167	524	1,762	633	2.2	167	232	234	2,199	480	1,719

See footnotes at end of table.

Table 39.—Number and percent of *full- and part-time* professional staff, October 1963, by *detailed field* and by degree; and estimated number needed for *full-time* replacements and additions, November 1963–October 1969, by *detailed field:* Institutions of seven selected types (three groups):[1] *Region I* [9]—Continued

Field	Staff, October 1963										Estimated further full-time staff needed November 1963–October 1969		
	Full-time					Part-time							
	Total		Bachelor's	Master's	Doctor's	Total		Bachelor's	Master's	Doctor's	Total	Replacements	Additions
	Number	Percent				Number	Percent						
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	ACADEMIC FIELDS[10]—Continued												
Physical Sciences—Continued													
Physics [27]	2,618	4.2	278	782	1,558	641	2.3	118	343	180	2,251	566	1,685
Geology	347	.6	8	76	263	71	.3	7	43	21	346	42	304
Geophysics, oceanography, and other earth sciences	153	.2	20	46	87	40	.1	8	13	19	138	41	97
Astronomy, metallurgy, and other physical sciences	639	1.0	120	205	314	103	.4	14	71	18	483	120	363
Psychology													
Total	*2,079*	*3.4*	*59*	*438*	*1,582*	*1,072*	*3.8*	*76*	*325*	*671*	*2,001*	*388*	*1,613*
Clinical; psychological counseling (including guidance and rehabilitation) [28]	355	.6	5	29	321	316	1.1	15	41	260	304	59	245
Social (including personality)	297	.5	7	72	218	115	.4	7	31	77	186	40	146
Experimental (including physiological and comparative)	594	1.0	7	104	483	151	.5	30	42	79	448	136	312
All other	833	1.3	40	233	560	490	1.8	24	211	255	1,063	153	910

Religion *(Includes religious education, Bible, and theology)*													
Total	*1,004*	*1.6*	*59*	*445*	*580*	*451*	*1.6*	*64*	*188*	*199*	*623*	*274*	*349*
Social Sciences													
Total	*7,458*	*12.0*	*289*	*2,513*	*4,656*	*2,842*	*10.0*	*268*	*1,682*	*883*	*7,063*	*1,727*	*5,336*
Basic:													
Anthropology	274	.4	7	45	222	79	.3	6	34	39	387	29	358
Economics [19]	1,441	2.3	90	420	931	530	1.9	61	288	181	1,263	371	892
HISTORY—													
European	1,212	2.0	30	434	748	571	2.0	10	456	105	1,104	303	801
United States	1,053	1.7	3	395	655	333	1.2	26	218	89	1,037	257	780
All other	453	.7	2	195	256	183	.6	6	134	34	475	108	367
International relations, political science, and government	1,322	2.1	37	351	934	411	1.5	93	134	184	1,153	249	904
Sociology	983	1.6	94	291	598	415	1.5	39	240	136	1,234	283	951
American civilization, area and regional studies, and all other basic social sciences [18]	293	.5	4	134	155	125	.4	9	65	51	212	50	162
Applied:													
Public administration	54	.1	2	9	43	40	.1	3	20	17	40	9	31
Social work, (including social administration	334	.5	16	229	89	133	.5	10	87	36	132	57	75
Foreign service programs and all other applied social sciences [21]	39	.1	4	10	25	22	.1	5	6	11	26	11	15
Trade and Industrial Training [22]													
Total	*25*	*0*	*18*	*6*	*1*	*58*	*.1*	*26*	*11*	*1*	*12*	*8*	*4*
Broad General Curricula													
Total	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
General Programs in:													
Humanities	0	0	0	0	0	0	0	0	0	0	0	0	0
Biological sciences	0	0	0	0	0	0	0	0	0	0	0	0	0

See footnotes at end of table.

Table 39.—Number and percent of *full- and part-time* professional staff, October 1963, by *detailed field* and by degree; and estimated number needed for *full-time* replacements and additions, November 1963–October 1969, by *detailed field:* Institutions of seven selected types (three groups):[1] *Region I*[1]—Continued

Field	Staff, October 1963										Estimated further full-time staff needed November 1963–October 1969		
	Full-time					Part-time							
	Total		Bachelor's	Master's	Doctor's	Total		Bachelor's	Master's	Doctor's	Total	Replacements	Additions
	Number	Percent				Number	Percent						
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	ACADEMIC FIELDS[10]—Continued												
Broad General Curricula—Continued													
Physical sciences	0	0	0	0	0	0	0	0	0	0	0	0	0
Social sciences	0	0	0	0	0	0	0	0	0	0	0	0	0
All Other Fields													
Total	*8*	*0*	*4*	*2*	*2*	*42*	*.1*	*30*	*7*	*5*	*2*	*0*	*2*
	TECHNICAL AND SEMIPROFESSIONAL FIELDS[11]												
Total	2,874	100.0	1,292	1,483	99	1,216	100.0	579	551	86	2,818	576	2,242
Engineering-related Technologies													
Total	*733*	*25.5*	*553*	*178*	*2*	*595*	*48.9*	*264*	*264*	*67*	*938*	*214*	*724*
Aeronautical (aircraft design and maintenance, airport operation, etc.)	7	.2	7	0	0	19	.6	11	6	2	6	4	2

Chemical (chemical processes, leather, paper, plastics, rubber, etc.)	3	.1	3	0	0	28	2.3	14	12	2	25	1	24
Civil (architechtural, drafting and design, building and construction, structural, etc.)	75	2.6	72	3	0	92	7.6	61	30	1	96	27	69
Electrical (electrical construction and wiring, electronics, instrumentation, radio and television, etc.)	225	7.8	184	41	0	143	11.8	89	53	1	216	72	144
General engineering (including engineering aide programs)	31	1.1	8	23	0	84	6.9	20	55	9	151	45	106
Industrial (production management, quality control, technical sales, etc.)	105	3.7	70	35	0	18	1.5	14	4	0	106	0	106
Mechanical (air conditioning, automotive, diesel, heating, horology, mechanical drafting and machine design, refrigeration, tool and die design, etc.)	245	8.5	188	56	1	87	7.2	45	41	1	226	64	162
Other (metallurgical, naval and marine, nuclear and atomic, petroleum, welding, etc.)	42	1.5	21	20	1	124	10.2	10	63	51	112	1	111
Nonengineering-related Fields													
Total	*2,141*	*74.5*	*739*	*1,305*	*97*	*621*	*51.1*	*315*	*287*	*19*	*1,880*	*362*	*1,518*
Agriculture and forestry (animal science, horticulture and floriculture, industrial agriculture, etc.)	419	14.6	143	274	2	0	0	0	0	0	218	72	146
Applied, fine, and graphic arts (music, commercial art and advertising, fashion design, interior decorating, photography, printing, radio and television broadcasting, etc.)	67	2.3	9	53	5	119	9.8	79	37	3	145	26	119
Automatic data processing	26	.9	8	18	0	2	.2	1	1	0	93	2	91
Business and commerce (accounting, management, secretarial, technical office assistants, real estate, insurance, purchasing, selling, industrial or labor relations, etc.)	557	19.4	285	271	1	298	24.5	143	153	2	459	110	349
Health service (dental and medical technicians, dental and medical assistants, practical nursing, x-ray technicians, etc.)	133	4.6	59	56	18	9	.7	0	0	9	406	55	351
Home economics	263	9.2	70	175	18	1	.1	1	0	0	140	70	70
Other	676	23.5	165	458	53	192	15.8	91	96	5	419	27	392

See footnotes on next page.

FOOTNOTES TO TABLE 39

[a] Connecticut, Delaware, District of Columbia, Maine, Maryland, Massachusetts New Hamsphire, New York, Pennsylvania, Rhode Island, and Vermont.

[1] *Group I:* Universities and technological schools; *Group II:* Liberal arts colleges and teachers colleges; *Group III:* 2-year institutions (junior colleges, technical schools, and semiprofessional schools.

[2] Institutions were instructed to report *only* professional staff in positions *normally requiring* a baccalaureate or higher degree.

[3] Includes registrars for professional schools, separate colleges, and branches.

[4] Does NOT include deans of separate colleges, who were reported in their academic fields.

[5] Head librarian and all professional librarians.

[6] Vice-president for student affairs, dean of students, etc.

[7] Includes deans of men, deans of women, and their assistants.

[8] Includes registered nurses.

[9] Food services, housing, bookstore, student union, etc.

[10] Institutions were instructed to report *only* professional instructional and research staff for those fields in which courses are *normally creditable* toward a baccalaureate or higher degree either in the local institution or by transfer to another institution.

[11] Does NOT include agricultural education, forestry, botany; entomology, genetics, etc, plant pathology and physiology; home economics and home economics education; or landscape architecture.

[12] Does NOT include plant pathology.

[13] Does NOT include plant physiology.

[14] Does NOT include general programs in biological sciences.

[15] Does NOT include economics.

[16] Does NOT include trade and industrial training.

[17] Includes agricultural, art, business and commercial, distributive, home economics, and music education.

[18] Includes adult, audiovisual, nursing education, etc.

[19] Does NOT include agricultural and architectural engineering.

[20] Does NOT include general programs in humanities.

[21] Does NOT include area studies.

[22] Does NOT include "basis sciences" of the health professions.

[23] Does NOT include programs not creditable toward a baccalaureate degree.

[24] Does NOT include nursing education and programs in practical nursing.

[25] Does NOT include home economics education.

[26] Does NOT include biochemistry.

[27] Does NOT include biophysics.

[28] Does NOT include educational counseling and guidance.

[29] Does NOT include agricultural economics.

[30] Does NOT include general programs in social sciences.

[31] Does NOT include agricultural economics and industrial relations.

[32] Does NOT include industrial arts education and trade and industrial education.

[33] Institutions were instructed to report *only* professional instructional and research staff for those fields in which courses are NOT normally creditable toward a baccalaureate or higher degree in either the local institution or by transfer to another institution; and NOT to include *adult education* and *craftsman training*.

Table 40.—Number and percent of *full- and part-time* professional staff, by stitutions of seven selected types (three

Field	Full-time						
	Number, by degree				Percent, by degree		
	Total	Bachelor's	Master's	Doctor's	Bachelor's	Master's	Doctor's
1	2	3	4	5	6	7	8
Total, all fields	**73,341**	**11,809**	**29,906**	**31,626**	**16.1**	**40.8**	**43.1**
Administrative							
Total	*13,546*	*6,288*	*5,391*	*1,867*	*46.4*	*39.8*	*13.8*
General	3,615	1,681	1,384	550	46.5	38.3	15.2
Academic affairs	3,436	889	1,914	633	25.9	55.7	18.4
Student services	3,341	1,249	1,441	651	37.4	43.1	19.5
Business affairs	3,154	2,469	652	33	78.3	20.7	1.0
Academic							
Total	*59,012*	*5,200*	*24,126*	*29,686*	*3.8*	*40.9*	*50.3*
Agriculture and forestry	2,482	559	815	1,108	22.5	32.8	44.7
Biological sciences	4,685	226	888	3,571	4.8	19.0	76.2
Business and commerce	3,253	589	1,595	1,069	18.1	49.0	32.9
Education	7,218	662	3,755	2,801	9.2	52.0	38.8
Engineering (including architecture)	5,250	809	2,412	2,029	15.4	45.9	38.7
English and journalism	4,775	250	2,721	1,804	5.2	57.0	37.8
Fine and applied arts	5,162	444	3,387	1,331	8.6	65.6	25.8
Foreign languages	2,787	117	1,197	1,473	4.2	42.9	52.9
Geography	364	1	135	228	.3	37.1	62.6
Health professions	5,552	604	1,292	3,656	10.9	23.3	65.8
Home economics	770	30	552	188	3.9	71.7	24.4
Law	470	126	133	211	26.8	28.3	44.9
Library science	144	9	97	38	6.2	67.4	26.4
Mathematical subjects	2,571	115	1,176	1,280	4.5	45.7	49.8
Philosophy	860	22	204	634	2.6	23.7	73.7
Physical sciences	4,709	379	1,109	3,221	8.0	23.6	68.4
Psychology	1,407	22	282	1,103	1.6	20.0	78.4
Religion	627	49	226	352	7.8	36.1	56.1
Basic social sciences	5,202	115	1,742	3,345	2.2	33.5	64.3
Applied social sciences	479	38	256	185	7.9	53.5	38.6
All other	245	34	152	59	13.9	62.0	24.1
Technical and Semiprofessional							
Total	*783*	*321*	*389*	*73*	*41.0*	*49.7*	*9.3*
Engineering-related	548	246	270	32	44.9	49.3	5.8
Nonengineering-related	235	75	119	41	31.9	50.6	17.5

[1] *Group I:* Universities and technological schools; *Group II:* Liberal arts colleges and teachers colleges; *Group III:* 2-year institutions—junior colleges, technical schools, and semiprofessional schools.

large field and by degree; total, and part-time as percent of total, in in-groups)[1] by large field: Region II,[2] October 1963

Part-time							Total	Part-time as percent of total
Number, by degree				Percent, by degree				
Total	Bachelor's	Master's	Doctor's	Bachelor's	Master's	Doctor's		
9	10	11	12	13	14	15	16	17
25,377	6,791	10,940	7,646	26.8	43.1	30.1	98,718	25.7
1,398	*552*	*581*	*265*	*39.5*	*41.6*	*18.9*	*14,944*	*9.4*
281	91	167	23	32.4	59.4	8.2	3,896	7.2
201	102	65	34	50.8	32.3	16.9	3,637	5.5
649	141	301	207	21.7	46.4	31.9	3,990	16.3
267	218	48	1	81.6	18.0	.4	3,421	7.8
22,666	*5,391*	*9,899*	*7,376*	*23.8*	*43.7*	*32.5*	*81,678*	*27.8*
562	238	215	109	42.3	38.3	19.4	3,044	18.5
908	225	288	395	24.8	31.7	43.5	5,593	16.2
1,940	571	1,195	174	29.4	61.6	9.0	5,193	37.4
1,984	499	1,127	358	25.2	56.8	18.0	9,202	21.6
1,599	567	888	144	35.5	55.5	9.0	6,849	23.3
1,335	294	974	67	22.0	73.0	5.0	6,110	21.8
1,715	473	1,156	86	27.6	67.4	5.0	6,877	24.9
899	270	532	97	30.0	59.2	10.8	3,686	24.4
105	21	58	26	20.0	55.2	24.8	469	22.4
6,067	856	304	4,907	14.1	5.0	80.9	11,619	52.2
193	97	85	11	50.3	44.0	5.7	963	20.0
374	298	14	62	79.7	3.7	16.6	844	44.3
71	16	49	6	22.5	69.0	8.5	215	33.0
1,051	285	691	75	27.1	65.8	7.1	3,622	29.0
187	15	92	80	8.0	49.2	42.8	1,047	17.9
1,306	470	661	175	36.0	50.6	13.4	6,015	21.7
729	48	477	204	6.6	65.4	28.0	2,136	34.1
345	28	186	131	8.1	53.9	38.0	972	35.5
1,154	96	812	246	8.3	70.4	21.3	6,356	18.2
87	11	57	19	12.7	65.5	21.8	566	15.4
55	13	38	4	23.6	69.1	7.3	300	18.3
1,313	*848*	*460*	*5*	*64.6*	*35.0*	*.4*	*2,096*	*62.6*
1,123	777	341	5	69.2	30.4	.4	1,671	67.2
190	71	119	0	37.4	62.6	0	425	44.7

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[2] Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin.

Table 41.—Number and percent of *full- and part-time* professional staff, October 1963, by *detailed field* and by degree; and estimated further number needed for full-time replacements and additions, November 1963–October 1969, by *detailed field:* Institutions of seven selected types (three groups):[1] *Region II*[0]

Field	Staff, October 1963										Estimated further full-time staff needed November 1963–October 1969		
	Full-time					Part-time							
	Total		Bachelor's	Master's	Doctor's	Total		Bachelor's	Master's	Doctor's	Total	Replacements	Additions
	Number	Percent				Number	Percent						
1	2	3	4	5	6	7	8	9	10	11	12	13	14
						SUMMARY							
Grand total, all fields	73,341	100.0	11,809	29,906	31,626	25,377	100.0	6,791	10,940	7,646	54,990	16,832	38,434
Total, administrative	13,546	18.5	6,288	5,391	1,867	1,398	5.5	552	581	265	9,249	2,738	6,511
Total, academic	59,012	80.4	5,200	24,126	29,686	22,666	89.3	5,391	9,899	7,376	43,832	12,047	31,785
Total, technical and semiprofessional	783	1.1	321	389	73	1,313	5.2	848	460	5	1,909	2,047	138
						ADMINISTRATIVE FIELDS [2]							
Total	13,546	100.0	6,288	5,391	1,867	1,398	100.0	552	581	265	9,249	2,738	6,511
General													
Total	*3,615*	*26.7*	*1,681*	*1,384*	*550*	*281*	*20.1*	*91*	*167*	*23*	*2,395*	*729*	*1,566*
Chief administrative officer	477	3.5	18	213	246	55	3.9	0	54	1	128	101	27
Officers for public relations, planning and development, alumi, etc.	1,064	7.9	614	390	60	71	5.1	50	19	2	603	193	410

Admissions and recruitment officers	789	5.8	488	258	43	96	6.9	33	63	0	716	212	504
Registrars and assistant registrars [3]	596	4.4	251	313	32	19	1.4	6	13	0	440	69	371
Other	689	5.1	310	210	169	40	2.7	2	18	20	408	154	254
Academic Affairs													
Total	*3,436*	*25.4*	*889*	*1,914*	*633*	*201*	*14.4*	*102*	*65*	*34*	*2,143*	*707*	*1,436*
Chief academic officer, academic vice-president, dean of faculties, academic dean, dean of instruction, etc. [4]	408	3.0	6	137	265	1	.1	0	0	0	219	82	136
Graduate dean and assistant graduate deans	174	1.3	7	58	109	32	2.3	5	15	12	102	29	73
Librarian [5]	2,408	17.8	784	1,502	122	131	9.8	91	45	1	1,561	521	1,040
Other	446	3.3	92	217	137	31	2.2	6	5	20	261	74	187
Student Services													
Total	*3,341*	*24.6*	*1,249*	*1,441*	*651*	*649*	*46.4*	*141*	*301*	*207*	*2,788*	*612*	*2,176*
Chief student services officer [6]	322	2.4	26	202	94	38	2.7	0	38	0	123	62	61
Assistant student services officers [7]	715	5.3	126	489	100	68	4.9	7	60	1	459	180	329
Counseling, advisory, and testing personnel	800	5.9	156	430	214	214	15.3	27	135	52	1,203	124	1,079
Health services personnel [8]	972	7.2	650	114	208	291	20.8	94	45	152	646	225	421
Other	532	3.9	291	206	35	38	2.7	13	23	2	357	71	286
Business Affairs													
Total	*3,154*	*23.3*	*2,469*	*652*	*33*	*267*	*19.1*	*218*	*48*	*1*	*1,023*	*690*	*1,333*
Chief business officer	385	2.8	194	183	8	20	1.4	19	1	0	145	76	69
Accounting and purchasing officers	773	5.7	611	160	2	11	.8	0	11	0	402	129	273
Physical plant management staff (including engineers)	458	3.4	377	79	2	20	1.4	19	1	0	368	72	296
Auxiliary services management staff [9]	1,192	8.8	1,011	170	11	208	14.9	173	34	0	895	347	549
Other	346	2.6	276	60	10	8	.6	6	1	1	213	66	147
	ACADEMIC FIELDS [10]												
Total	**59,012**	**100.0**	**5,200**	**24,126**	**29,686**	**22,666**	**100.0**	**5,391**	**9,899**	**7,376**	**43,832**	**12,047**	**31,785**
Agriculture ***(Includes agricultural economics and agricultural engineering)*** [11]													
Total	*2,344*	*4.0*	*546*	*769*	*1,029*	*553*	*2.4*	*233*	*212*	*108*	*1,075*	*518*	*557*

See footnotes at end of table.

Table 41.—Number and percent of *full- and part-time* professional staff, October 1963, by *detailed field* and by degree; and estimated further number needed for full-time replacements and additions, November 1963–October 1969, by *detailed field:* Institutions of seven selected types (three groups):[1] *Region II*[1]—Continued

Field	Staff, October 1963										Estimated further full-time staff needed November 1963–October 1969		
	Full-time					Part-time							
	Total		Bach-elor's	Mas-ter's	Doc-tor's	Total		Bach-elor's	Mas-ter's	Doc-tor's	Total	Re-place-ments	Addi-tions
	Num-ber	Per-cent				Num-ber	Per-cent						
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	ACADEMIC FIELDS[10]—Continued												
Architecture (*Includes architectural engineering*)													
Total	*327*	*.6*	*116*	*204*	*7*	*85*	*3.7*	*47*	*34*	*4*	*229*	*76*	*153*
Biological Sciences (*Includes all "basic sciences" of the health professions*)													
Total	*4,685*	*7.9*	*226*	*888*	*3,571*	*908*	*4.0*	*225*	*288*	*395*	*3,168*	*906*	*2,262*
General biology	816	1.4	20	408	388	145	.6	28	103	14	691	206	485
General botany	500	.9	5	80	415	76	.3	32	24	20	301	104	197
General zoology	654	1.1	50	93	511	95	.4	42	37	16	361	103	258
Anatomy and histology	356	.6	36	43	277	94	.4	17	23	54	252	73	179
Bactriology, microbiology, mycology, parasitology, and virology	465	.8	26	68	371	73	.3	24	24	25	370	82	288

Biochemistry	420	.7	20	15	385	56	.3	17	17	22	261	74	187
Pathology [12]	301	.5	21	13	267	174	.8	14	12	148	171	55	116
Pharmacology	163	.3	8	19	136	26	.1	2	3	21	95	30	65
Physiology [13]	326	.6	13	46	267	97	.4	34	8	45	210	80	130
Biophysics, cytology, ecology, embryology, entomology, genetics, plant pathology, plant physiology, and other biological sciences [14]	684	1.2	27	103	554	82	.4	15	37	30	456	99	357
Business and Commerce													
Total	*3,253*	*5.5*	*589*	*1,595*	*1,069*	*1,940*	*8.6*	*571*	*1,195*	*174*	*2,705*	*661*	*2,044*
Accounting, auditing, and taxation	904	1.5	194	535	175	453	2.0	82	352	19	855	247	608
Finance, investments, and law [15]	231	.4	9	75	147	331	1.5	78	140	113	304	43	261
Secretarial studies	590	1.0	166	383	41	203	.9	44	159	0	334	64	270
Marketing, retailing, wholesaling, and advertising	404	.7	43	204	157	109	.5	31	74	4	309	47	262
Personnel management and industrial relations	390	.7	59	146	185	170	.8	31	130	9	281	61	220
Business and commerce, general, and not otherwise classified	734	1.2	118	252	364	674	3.0	305	240	29	622	199	423
Education													
Total	*7,218*	*12.2*	*662*	*3,755*	*2,801*	*1,984*	*8.8*	*499*	*1,127*	*358*	*5,112*	*1,516*	*3,596*
Health education, physical education, and recreation (including athletic coaches)	2,448	4.1	388	1,742	318	583	2.6	313	202	68	1,413	447	966
Educational psychology (including special education, educational counseling, and guidance)	665	1.1	20	178	467	246	1.1	9	178	59	723	185	538
Industrial arts education and trade and industrial education [16]	270	.5	62	146	62	37	.2	10	27	0	168	69	99
Elementary education, nursery and kindergarten, and early childhood education (including art education and music education)	1,060	1.8	65	609	386	320	1.4	23	224	73	693	203	490
Secondary education (including junior high school)[17]	1,409	2.4	58	577	774	362	1.6	57	222	83	1,004	309	695

See footnotes at end of table.

Table 41.—Number and percent of *full- and part-time* professional staff, October 1963, by *detailed field* and by degree; and estimated further number needed for full-time replacements and additions, November 1963–October 1969, by *detailed field:* Institutions of seven selected types (three groups):[1] *Region II* [0]—Continued

Field	Staff, October 1963										Estimated further full-time staff needed November 1963–October 1969		
	Full-time					Part-time							
	Total		Bachelor's	Master's	Doctor's	Total		Bachelor's	Master's	Doctor's	Total	Replacements	Additions
	Number	Percent				Number	Percent						
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	ACADEMIC FIELDS [10]—Continued												
Education—Continued													
Educational administration and supervision and educational finance (both elementary and secondary)	340	.6	0	37	303	96	.4	0	68	28	223	69	154
Higher education (including junior college)	87	.2	1	17	69	11	.1	0	5	6	110	27	83
Other [18]	939	1.6	68	449	422	329	1.5	87	201	41	778	207	571
Engineering													
Total	*4,923*	*8.3*	*693*	*2,208*	*2,022*	*1,514*	*6.7*	*520*	*854*	*140*	*3,150*	*1,047*	*2,103*
Aeronautical (including aerospace)	386	.7	42	121	223	48	.2	27	14	7	213	69	144
Chemical	341	.6	19	87	235	38	.2	5	22	11	257	83	174
Civil	664	1.1	57	398	209	161	.7	39	116	6	396	113	283
Electrical	1,232	2.1	156	576	500	189	.8	51	101	37	813	271	542
Mechanical	791	1.3	125	457	209	327	1.5	115	206	6	475	152	323
Other [19]	1,509	2.6	294	569	646	751	3.3	283	395	73	996	359	637

English and Journalism													
Total	*4,775*	*8.1*	*250*	*2,721*	*1,804*	*1,335*	*5.9*	*294*	*974*	*67*	*4,400*	*996*	*3,404*
English and literature (including comparative literature)	4,362	7.4	192	2,466	1,704	1,182	5.2	222	904	56	4,092	919	3,173
Journalism	413	.7	58	255	100	153	.7	72	70	11	308	77	231
Fine and Applied Arts													
Total	*5,162*	*8.8*	*444*	*3,387*	*1,331*	*1,715*	*7.6*	*473*	*1,156*	*86*	*3,552*	*798*	*2,754*
Art, general	1,093	1.9	147	782	164	431	1.9	107	315	9	815	166	649
Music (including sacred music)	2,098	3.6	171	1,488	439	744	3.3	293	425	26	1,191	334	857
Speech and dramatic arts (including speech correction)	1,593	2.7	79	987	527	456	2.0	28	388	40	1,222	209	1,013
Other [20]	378	.6	47	130	201	84	.4	45	28	11	324	89	235
Foreign Languages, Linguistics, and Literature													
Total	*2,787*	*4.7*	*117*	*1,197*	*1,473*	*899*	*4.0*	*270*	*532*	*97*	*2,190*	*634*	*1,556*
Latin, Greek, and Hebrew	371	.6	36	84	251	78	.3	6	43	29	186	76	110
French (including philology and literature)	796	1.4	15	408	373	209	.9	68	123	18	629	207	422
Spanish (including philology and literature)	713	1.2	29	386	298	270	1.2	78	193	9	570	133	437
Germanic languages (including philology and literature)	624	1.1	18	254	352	236	1.0	76	143	17	515	151	364
Russian and other Slavic languages (including philology and literature)	157	.3	14	50	93	76	.3	38	21	17	198	46	152
Other [21]	126	.2	5	15	106	30	.1	4	19	7	92	21	71
Forestry													
Total	*138*	*.2*	*13*	*46*	*79*	*9*	*0*	*5*	*3*	*1*	*110*	*35*	*75*
Geography													
Total	*364*	*.6*	*1*	*135*	*228*	*105*	*.5*	*21*	*58*	*26*	*464*	*84*	*380*
Health Professions [22]													
Total	*5,552*	*9.4*	*604*	*1,292*	*3,656*	*6,067*	*26.8*	*856*	*304*	*4,907*	*3,324*	*1,212*	*2,112*
Medical and dental technologies and medical therapies [23]	147	.3	42	74	31	58	.3	28	23	7	114	25	89

See footnotes at end of table.

Table 41.—Number and percent of *full- and part-time* professional staff, October 1963, by *detailed field* and by degree; and estimated further number needed for full-time replacements and additions, November 1963–October 1969, by *detailed field:* Institutions of seven selected types (three groups):[1] *Region II*[6]—Continued

Field	Staff, October 1963										Estimated further full-time staff needed November 1963–October 1969		
	Full-time					Part-time							
	Total		Bachelor's	Master's	Doctor's	Total		Bachelor's	Master's	Doctor's	Total	Replacements	Additions
	Number	Percent				Number	Percent						
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	ACADEMIC FIELDS[10]—Continued												
Health Professions[11]—Continued													
Denistry, D.D.S. and D.M.D. (including graduate specialities)	524	.9	34	32	458	971	4.3	70	18	883	375	139	236
Medical specialities (including dermatology; internal medicine including allergy, cardiovascular disease, gastroenterology and pulmonary diseases; and pediatrics)	1,022	1.7	75	83	864	1,881	8.3	300	43	1,538	484	182	302
Surgical specialities (including anesthesiology, colon and rectal surgery, general surgery, neurological surgery, obstetrics and gynecology, ophthalmology, orthopedic surgery, otolaryngology, plastic surgery, thoracic surgery, and urology)	858	1.5	50	59	749	1,699	7.5	156	24	1,519	420	149	271
Psychiatry and neurology	456	.8	32	55	369	547	2.4	46	47	454	208	77	131

Other specialities (including administrative medicine, physical medicine and rehabilitation, preventive medicine, and radiology)	832	1.4	119	69	644	575	2.5	124	29	422	382	163	219
Nursing [24]	786	1.3	129	628	29	100	.4	42	41	17	721	228	493
Pharmacy	273	.5	38	58	177	52	.2	9	26	17	167	58	109
Public health	200	.3	10	87	103	47	.2	23	9	15	143	57	86
Veterinary medicine, D.V.M. (including clinical veterinary medical sciences)	375	.6	60	113	202	70	.3	28	21	21	245	104	141
Podiatry, optometry, osteopathy, hospital administration, and other health professions)	79	.1	15	34	30	67	.3	30	23	14	65	30	35
Home Economics [25]													
Total	*770*	*1.3*	*30*	*552*	*188*	*193*	*.9*	*97*	*85*	*11*	*601*	*216*	*385*
Law													
Total	*470*	*.8*	*126*	*133*	*211*	*374*	*1.7*	*298*	*14*	*62*	*259*	*84*	*175*
Library Science													
Total	*144*	*.3*	*9*	*97*	*38*	*71*	*.3*	*16*	*49*	*6*	*139*	*44*	*95*
Mathematical Subjects													
Total	*2,571*	*4.4*	*115*	*1,176*	*1,280*	*1,051*	*4.6*	*285*	*691*	*75*	*2,323*	*527*	*1,796*
Mathematics	2,446	4.2	109	1,159	1,178	989	4.4	278	650	61	2,206	512	1,694
Statistics (including actuarial science)	125	.2	6	17	102	62	.3	7	41	14	117	15	102
Philosophy (*Includes scholastic philosophy*)													
Total	*860*	*1.5*	*22*	*204*	*634*	*187*	*.8*	*15*	*92*	*80*	*611*	*195*	*416*
Physical Sciences													
Total	*4,709*	*8.0*	*379*	*1,109*	*3,221*	*1,306*	*5.8*	*470*	*661*	*175*	*3,373*	*938*	*2,435*
Chemistry [26]	2,165	3.7	122	475	1,568	702	3.1	349	253	100	1,364	391	973
Physics [27]	1,651	2.8	164	456	1,031	309	1.4	96	193	20	1,046	348	698

See footnotes at end of table.

Table 41.—Number and percent of *full- and part-time* professional staff, October 1963, by *detailed field* and by degree; and estimated further number needed for full-time replacements and additions, November 1963–October 1969, by *detailed field:* Institutions of seven selected types (three groups):[1] *Region II*[9]—Continued

Field	Staff, October 1963										Estimated further full-time staff needed November 1963–October 1969		
	Full-time					Part-time							
	Total		Bachelor's	Master's	Doctor's	Total		Bachelor's	Master's	Doctor's	Total	Replacements	Additions
	Number	Percent				Number	Percent						
1	2	3	4	5	6	7	8	9	10	11	12	13	14
ACADEMIC FIELDS[10]—Continued													
Physical Sciences—Continued													
Geology	425	.7	5	72	348	83	.4	22	51	10	336	83	253
Geophysics, oceanography, and other earth sciences	111	.2	5	34	72	8	0	2	3	3	82	11	71
Astronomy, metallurgy, and other physical sciences	357	.6	83	72	202	204	.9	1	161	42	545	105	440
Psychology													
Total	*1,407*	*2.4*	*22*	*282*	*1,103*	*729*	*3.2*	*48*	*477*	*204*	*1,481*	*304*	*1,177*
Clinical; psychological counseling (including guidance and rehabilitation)[28]	305	.5	0	47	258	85	.4	6	46	33	210	76	134
Social (including personality)	148	.3	1	12	135	70	.3	10	19	41	118	23	95
Experimental (including physiological and comparative)	299	.5	1	10	288	29	.1	6	4	19	225	40	185
All other	655	1.1	20	213	422	545	2.4	26	408	111	928	165	763

Religion ***(Includes religious education, Bible, and theology)***													
Total	*627*	*1.1*	*49*	*226*	*352*	*345*	*1.5*	*28*	*186*	*131*	*448*	*147*	*301*
Social Sciences													
Total	*5,681*	*9.6*	*153*	*1,998*	*3,530*	*1,241*	*5.5*	*107*	*869*	*265*	*4,935*	*1,082*	*3,853*
Basic:													
Anthropology	203	.3	4	47	152	18	.1	7	3	8	150	30	120
Economics [29]	1,131	1.9	42	399	690	249	1.1	32	150	67	838	209	629
HISTORY—													
European	666	1.1	17	172	477	61	.3	4	47	10	513	104	409
United States	666	1.1	9	240	417	153	.7	4	123	26	493	71	422
All other	560	.9	4	182	374	83	.4	21	61	1	460	149	311
International relations, political science, and government	787	1.3	10	261	516	238	1.1	8	188	42	771	154	617
Sociology	995	1.7	16	378	601	307	1.4	16	205	86	1,104	240	864
American civilization, area and regional studies, and all other basic social sciences [30]	194	.3	13	63	118	45	.2	4	35	6	336	40	296
Applied:													
Public administration	63	.1	8	19	36	4	0	1	3	0	41	10	31
Social work (including social administration)	338	.6	15	203	120	78	.4	8	51	19	194	58	136
Foreign service programs and all other applied social sciences [31]	78	.1	15	34	29	5	0	2	3	0	35	17	18
Trade and Industrial Training [32]													
Total	*140*	*.2*	*25*	*83*	*32*	*25*	*.1*	*12*	*13*	*0*	*98*	*15*	*83*
Broad General Curricula													
Total	*78*	*.1*	*0*	*62*	*16*	*29*	*.1*	*0*	*25*	*4*	*61*	*9*	*52*
General Programs in:													
Humanities	26	0	0	20	6	3	0	0	3	0	19	2	17
Biological sciences	18	0	0	14	4	8	0	0	6	2	8	1	7
Physical sciences	9	0	0	7	2	9	0	0	8	1	9	1	8
Social sciences	25	0	0	21	4	9	0	0	8	1	25	5	20
All Other Fields													
Total	*27*	*0*	*9*	*7*	*11*	*1*	*0*	*1*	*0*	*0*	*24*	*3*	*21*

See footnotes at end of table.

Table 41.—Number and percent of *full- and part-time* professional staff, October 1963, by *detailed field* and by degree; and estimated further number needed for full-time replacements and additions, November 1963–October 1969, by *detailed field:* Institutions of seven selected types (three groups):[1] *Region II*[1]—Continued

Field	Staff, October 1963										Estimated further full-time staff needed November 1963–October 1969		
	Full-time					Part-time							
	Total		Bachelor's	Master's	Doctor's	Total		Bachelor's	Master's	Doctor's	Total	Replacements	Additions
	Number	Percent				Number	Percent						
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	TECHNICAL AND SEMIPROFESSIONAL FIELDS [11]												
Total	783	100.0	321	389	73	1,313	100.0	848	460	5	2,047	138	1,909
Engineering-related Technologies													
Total	*548*	*70.0*	*246*	*270*	*32*	*1,123*	*85.5*	*777*	*341*	*5*	*1,196*	*79*	*1,117*
Aeronautical (aircraft design and maintenance, airport operation, etc.)	34	4.3	14	19	1	2	.2	2	0	0	42	7	35
Chemical (chemical processes, leather, paper, plastics, rubber, etc.)	12	1.5	0	3	9	13	1.0	2	7	4	148	3	145
Civil (architechtural, drafting and design, building and construction, structural, etc.)	40	5.1	11	27	2	21	1.6	20	1	0	280	3	277
Electrical (electrical construction and wiring, electronics, instrumentation, radio and television, etc.)	195	24.9	154	41	0	147	11.2	87	60	0	268	37	231

General engineering (including engineering aide programs)	4	.5	2	2	0	11	.8	11	0	0	72	0	72
Industrial (production management, quality control, technical sales, etc.)	25	3.2	21	4	0	41	3.1	22	19	0	54	3	51
Mechanical (air conditioning, automotive, diesel, heating, horology, mechanical drafting and machine design, refrigeration, tool and die design, etc.)	76	9.7	12	64	0	781	59.5	536	244	1	126	9	117
Other (metallurgical, naval and marine, nuclear and atomic, petroleum, welding, etc.)	162	20.7	32	110	20	107	8.2	97	10	0	206	17	189
Nonengineering-related Fields													
Total	*235*	*30.0*	*75*	*119*	*41*	*190*	*14.5*	*71*	*119*	*0*	*851*	*59*	*792*
Agricultural and forestry (animal science, horticulture and floriculture, industrial agriculture, etc.)	7	.9	2	3	2	0	0	0	0	0	109	1	108
Applied, fine, and graphic arts (music, commercial art and advertising, fashion design, interior decorating, photography, printing, radio and television broadcasting, etc.)	40	5.1	18	21	1	48	3.7	5	43	0	95	16	79
Automatic data processing	72	9.2	14	29	29	46	3.5	12	34	0	127	16	111
Business and commerce (accounting, management, secretarial, technical office assistants, real estate, insurance, purchasing, selling, industrial or labor relations, etc.)	46	5.9	9	34	3	29	2.2	12	17	0	300	13	287
Health service (dental and medical technicians, dental and medical assistants, practical nursing, x-ray technicians, etc.)	37	4.7	20	12	5	5	.4	4	1	0	156	11	45
Home economics	4	.5	3	1	0	3	.2	1	2	0	3	0	3
Other	29	3.7	9	19	1	59	4.5	57	22	0	61	2	59

See footnotes on next page.

FOOTNOTES TO TABLE 41

[0] Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin.

[1] *Group I:* Universities and technological schools: *Group II:* Liberal arts colleges and teachers colleges; *Group III:* 2-year institutions (junior colleges, technical schools, and semiprofessional schools.

[2] Institutions were instructed to report *only* professional staff in positions *normally requiring* a baccalaureate or higher degree.

[3] Includes registrars for professional schools, separate colleges, and branches.

[4] Does NOT include deans of separate colleges, who were reported in their academic fields.

[5] Head librarian and all professional librarians.

[6] Vice-president for student affairs, dean of students, etc.

[7] Includes deans of men, deans of women, and their assistants.

[8] Includes registered nurses.

[9] Food service, housing, bookstore, student union, etc.

[10] Institutions were instructed to report *only* professional instructional and research staff for those fields in which courses are *normally creditable* toward a baccalaureate or higher degree either in the local institution or by transfer to another institution.

[11] Does NOT include agricultural education, forestry, botany; entomology, genetics, etc; plant pathology and physiology; home economics and home economics education; or landscape architecture.

[12] Does NOT include plant pathology.

[13] Does NOT include plant physiology.

[14] Does NOT include general programs in biological sciences.

[15] Does NOT include economics.

[16] Does NOT include trade and industrial training.

[17] Includes agricultural, art, business and commercial, distributive, home economics, and music education.

[18] Includes adult, audiovisual, nursing education, etc.

[19] Does NOT include agricultural and architectural engineering.

[20] Does NOT include general programs in humanities.

[21] Does NOT include area studies.

[22] Does NOT include "basis sciences" of the health professions.

[23] Does NOT include programs not creditable toward a baccalaureate degree.

[24] Does NOT include nursing education and programs in practical nursing.

[25] Does NOT include home economics education.

[26] Does NOT include biochemistry.

[27] Does NOT include biophysics.

[28] Does NOT include educational counseling and guidance.

[29] Does NOT include agricultural economics.

[30] Does NOT include general programs in social sciences.

[31] Does NOT include agricultural economics and industrial relations.

[32] Does NOT include industrial arts education and trade and industrial education.

[33] Institutions were instructed to report *only* professional instructional and research staff for those fields in which courses are NOT normally creditable toward a baccalaureate or higher degree in either the local institution or by transfer to another institution; and NOT to include *adult education* and *craftsman training*.

Table 42.—Number and percent of *full- and part-time* professional staff, by institutions of seven selected types (3 groups),[1]

Field	Full-time						
	Number, by degree				Percent, by degree		
	Total	Bachelor's	Master's	Doctor's	Bachelor's	Master's	Doctor's
1	2	3	4	5	6	7	8
Total, all fields	50,959	9,756	23,866	17,337	19.2	46.8	34.0
Administrative							
Total	*11,226*	*5,884*	*3,895*	*1,447*	*52.4*	*34.7*	*12.9*
General	2,470	1,216	841	413	49.2	34.1	16.7
Academic affairs	2,592	694	1,383	515	26.7	53.4	19.9
Student services	3,105	1,543	1,116	446	49.7	35.9	14.4
Business affairs	3,059	2,431	555	73	79.5	18.1	2.4
Academic							
Total	*38,829*	*3,481*	*19,606*	*15,742*	*9.0*	*50.5*	*40.5*
Agriculture and forestry	2,337	303	884	1,150	13.0	37.8	49.2
Biological sciences	3,317	129	982	2,206	3.9	29.6	66.5
Business and commerce	1,989	187	1,334	468	9.4	67.1	23.5
Education	5,512	815	3,223	1,474	14.8	58.5	26.7
Engineering (including architecture)	1,936	376	949	611	19.4	49.0	31.6
English and journalism	3,153	135	2,061	957	4.3	65.4	30.3
Fine and applied arts	3,179	305	2,462	412	9.6	77.4	13.0
Foreign languages	1,872	77	1,034	761	4.1	55.2	40.7
Geography	258	2	212	44	.8	82.2	17.0
Health professions	3,166	171	622	2,373	5.4	19.6	75.0
Home economics	934	132	687	115	14.1	73.6	12.3
Law	320	156	91	73	48.4	28.4	22.8
Library science	154	10	134	10	6.5	87.0	6.5
Mathematical subjects	1,908	189	1,210	509	9.9	63.4	26.7
Philosophy	523	18	238	267	3.4	45.5	51.1
Physical sciences	2,625	165	971	1,489	6.3	37.0	56.7
Psychology	793	66	252	475	8.3	31.8	59.9
Religion	879	91	342	446	10.4	38.9	50.7
Basic social sciences	3,614	44	1,729	1,841	1.2	47.8	51.0
Applied social sciences	181	14	111	56	7.7	61.3	31.0
All other	179	96	78	5	53.6	43.6	2.8
Technical and Semiprofessional							
Total	*904*	*391*	*365*	*148*	*43.3*	*40.4*	*16.3*
Engineering-related	143	0	47	0	67.1	32.9	0
Nonengineering-related	761	295	318	148	38.8	41.8	19.4

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[1] *Group I:* Universities and technological schools; *Group II:* liberal arts colleges and teachers colleges; *Group III:* 2-year institutions—junior colleges, technical schools, and semiprofessional schools.

large field and by degree; total, and part-time as percent of total, in by large field: Region III,[2] October 1963

Part-time							Total	Part-time as percent of total
Number, by degree				Percent, by degree				
Total	Bachelor's	Master's	Doctor's	Bachelor's	Master's	Doctor's		
9	10	11	12	13	14	15	16	17
12,706	2,599	4,567	5,540	20.5	35.9	43.6	63,665	20.0
1,005	*489*	*363*	*153*	*48.7*	*36.1*	*15.2*	*12,231*	*8.2*
110	87	12	11	7.10	10.9	10.0	2,580	4.3
196	85	108	3	43.4	55.1	1.5	2,788	7.0
490	120	242	128	24.5	49.4	26.1	3,595	13.6
209	197	1	11	94.3	5.3	.4	3,268	6.4
11,632	*2,080*	*4,198*	*5,354*	*17.9*	*36.1*	*46.0*	*50,461*	*23.1*
38	6	18	14	15.8	47.4	36.8	2,375	1.6
646	149	172	325	23.1	26.6	50.3	3,963	17.1
722	253	454	15	35.0	62.9	2.1	2,711	26.6
1,221	208	822	191	17.0	67.3	15.7	6,733	18.1
412	136	191	85	33.0	46.4	20.6	2,348	17.5
667	189	415	63	28.3	62.2	9.5	3,820	17.5
717	199	499	24	27.8	68.9	3.3	3,896	18.4
397	170	197	30	42.8	49.6	7.6	2,269	17.5
56	2	43	11	3.6	76.8	19.6	314	17.8
4,243	146	61	4,036	3.5	1.4	95.1	7,409	57.3
52	30	21	1	57.7	40.4	1.9	968	5.3
84	64	16	4	76.2	19.0	4.8	454	18.5
214	54	160	0	25.2	74.8	0	368	58.2
339	131	178	30	38.6	52.5	8.9	2,247	15.1
97	4	39	54	4.1	40.2	55.7	620	15.6
474	187	136	151	39.5	28.7	31.8	3,099	15.3
288	40	126	122	13.9	43.7	42.4	1,081	26.6
172	26	117	34	15.1	65.1	19.8	1,051	17.2
674	70	462	142	10.4	68.5	21.1	4,288	15.7
100	5	77	18	5.0	77.0	18.0	281	35.6
19	11	4	4	57.8	21.1	21.1	198	9.6
69	*30*	*6*	*33*	*43.5*	*8.7*	*47.8*	*937*	*7.4*
18	18	0	0	100.0	0	0	161	11.2
51	12	6	33	23.5	11.8	64.7	794	6.4

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[2] Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, and West Virginia.

Table 43.—Number and percent of *full- and part-time* professional staff, October 1963, by *detailed field* and by degree; and estimated number needed for full-time replacements and additions, November 1963–October 1969, by *detailed field:* Institutions of seven selected types (three groups):[1] *Region III* [0]

Field	Staff, October 1963										Estimated further full-time staff needed November 1963–October 1969		
	Full-time					Part-time							
	Total		Bachelor's	Master's	Doctor's	Total		Bachelor's	Master's	Doctor's	Total	Replacements	Additions
	Number	Percent				Number	Percent						
1	2	3	4	5	6	7	8	9	10	11	12	13	14
SUMMARY													
Grand total, all fields	50,959	100.0	9,756	23,866	17,337	12,706	100.0	2,599	4,567	5,540	32,905	8,158	24,747
Total, administrative	11,226	22.0	5,884	3,895	1,447	1,005	7.9	489	363	153	6,739	1,563	5,176
Total, academic	38,829	76.2	3,481	19,606	15,742	11,632	91.6	2,080	4,198	5,354	25,492	6,514	18,978
Total, technical and semiprofessional	904	1.8	391	365	148	69	.5	30	6	33	674	81	593
ADMINISTRATIVE FIELDS [2]													
Total	11,226	100.0	5,884	3,895	1,447	1,005	100.0	489	363	153	6,739	1,563	5,176
General													
Total	*2,470*	*22.0*	*1,216*	*841*	*413*	*110*	*9.5*	*87*	*12*	*11*	*1,474*	*338*	*1,136*
Chief administrative officer	438	3.9	24	187	227	0	0	0	0	0	154	85	69
Officers for public relations, planning and development, alumni, etc	801	7.1	470	287	44	40	4.0	29	0	11	484	137	347

Admissions and recruitment officers	227	2.0	112	97	18	55	5.5	55	0	0	346	43	303
Registrars and assistant registrars [3]	661	5.9	356	217	88	1	.1	1	0	0	321	55	266
Other	343	3.1	254	53	36	14	1.4	2	12	0	169	18	151
Academic Affairs													
Total	*2,592*	*23.1*	*694*	*1,383*	*515*	*196*	*19.5*	*85*	*108*	*3*	*1,575*	*370*	*1,205*
Chief academic officer, academic vice-president, dean of faculties, academic dean, dean of instruction, etc [4]	444	4.0	1	120	323	0	0	0	0	0	127	65	62
Graduate dean and assistant graduate deans	116	1.0	1	33	82	24	2.4	22	0	2	131	18	113
Librarian [5]	1,852	16.5	617	1,175	60	171	17.0	62	108	1	1,156	267	889
Other	180	1.6	75	55	50	1	.1	1	0	0	161	20	141
Student Services													
Total	*3,105*	*27.7*	*1,543*	*1,116*	*446*	*490*	*48.8*	*120*	*242*	*128*	*1,817*	*502*	*1,315*
Chief student services officer [6]	341	3.0	15	221	105	0	0	0	0	0	97	32	65
Assistant student services officers [7]	735	6.5	217	448	70	55	5.5	31	22	2	400	132	268
Counseling, advisory, and testing personnel	686	6.1	277	282	127	132	13.1	22	101	9	564	65	499
Health services personnel [8]	1,177	10.5	946	110	121	259	25.8	66	76	117	657	265	392
Other	166	1.5	88	55	23	44	4.4	1	43	0	99	8	91
Business Affairs													
Total	*3,059*	*27.2*	*2,431*	*555*	*73*	*209*	*20.8*	*197*	*1*	*11*	*1,873*	*353*	*1,520*
Chief business officer	412	3.7	217	179	16	86	8.6	86	0	0	172	36	136
Accounting and purchasing officers	547	4.9	445	91	11	21	2.1	21	0	0	319	42	277
Physical plant management staff (including engineers)	536	4.8	506	27	3	1	.1	1	0	0	310	46	264
Auxiliary services management staff [9]	1,114	9.9	968	176	0	76	7.6	75	1	0	849	144	705
Other	420	3.7	295	82	43	25	2.5	14	0	11	223	85	138
	ACADEMIC FIELDS [10]												
Total	**38,829**	**100.0**	**3,481**	**19,606**	**15,742**	**11,632**	**100.0**	**2,080**	**4,198**	**5,354**	**25,492**	**6,514**	**18,978**
Agriculture ***(Includes agricultural economics and agricultural engineering)***													
Total	*2,184*	*5.6*	*290*	*819*	*1,075*	*37*	*.3*	*6*	*17*	*14*	*774*	*363*	*411*

See footnotes at end of table.

Table 43.—Number and percent of *full -and part-time* professional staff, October 1963, by *detailed field* and by degree; and estimated number needed for full-time replacements and additions, November 1963–October 1969, by *detailed field:* Institutions of seven selected types (three groups):[1] *Region III* [9]—Continued

Field	Staff, October 1963										Estimated further full-time staff needed November 1963–October 1969		
	Full-time					Part-time							
	Total		Bachelor's	Master's	Doctor's	Total		Bachelor's	Master's	Doctor's	Total	Replacements	Additions
	Number	Percent				Number	Percent						
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	ACADEMIC FIELDS [10]—Continued												
Architecture (*Includes architectural engineering*)[11]													
Total	*182*	*.5*	*71*	*104*	*7*	*27*	*.2*	*17*	*9*	*1*	*102*	*22*	*80*
Biological Sciences (*Includes all "basic sciences" of the health professions*)													
Total	*3,317*	*8.5*	*120*	*982*	*2,206*	*646*	*5.6*	*149*	*172*	*325*	*2,179*	*449*	*1,730*
General biology	1,120	2.9	76	574	470	334	2.9	99	127	108	656	110	546
General botany	250	.6	4	102	144	25	.2	13	7	5	175	43	132
General zoology	258	.7	3	99	156	40	.3	26	6	8	223	49	174
Anatomy and histology	241	.6	4	31	206	31	.3	1	3	27	132	32	100
Bactriology, microbiology, mycology, parasitology, and virology	256	.7	6	51	199	54	.5	3	24	27	219	33	186

Biochemistry	246	.6	14	6	226	29	.2	1	5	23	160	43	117
Pathology [12]	190	.5	14	7	178	105	.9	4	0	101	120	33	87
Pharmacology	123	.3	0	4	119	13	.1	1	0	12	57	23	34
Physiology [13]	185	.5	2	17	166	12	.1	0	0	12	156	25	131
Biophysics, cytology, ecology, embryology, entomology, genetics, plant pathology, plant physiology, and other biological sciences [14]	439	1.1	6	91	342	3	0	1	0	2	281	58	223
Business and Commerce													
Total	*1,989*	*5.1*	*187*	*1,334*	*468*	*722*	*6.2*	*253*	*454*	*15*	*1,530*	*355*	*1,175*
Accounting, auditing, and taxation	461	1.2	7	354	100	282	2.4	89	193	0	414	124	290
Finance, investments, and law [15]	176	.5	3	103	70	60	.5	40	14	6	140	39	101
Secretarial studies	582	1.5	86	487	9	46	.4	19	27	0	308	63	245
Marketing, retailing, wholesaling, and advertising	253	.7	49	130	74	26	.2	13	12	1	242	66	176
Personnel management and industrial relations	137	.4	2	74	61	22	.2	10	11	1	161	14	147
Business and commerce, general, and not otherwise classified	380	1.0	40	186	154	286	2.5	82	197	7	265	49	216
Education													
Total	*5,512*	*14.2*	*815*	*3,223*	*1,474*	*1,221*	*10.5*	*208*	*822*	*191*	*3,094*	*699*	*2,395*
Health education, physical education, and recreation (including athletic coaches)	2,253	5.8	605	1,453	195	168	1.4	79	86	3	930	208	722
Educational psychology (including special education, educational counseling, and guidance)	509	1.3	0	227	282	182	1.6	0	85	97	414	82	332
Industrial arts education and trade and industrial education [16]	184	.5	26	127	31	38	.3	2	25	11	138	31	107
Elementary education, nursery and kindergarten, and early childhood education (including art education and music education)	904	2.3	55	621	228	237	2.0	6	213	18	533	138	395
Secondary education (including junior high school)[17]	1,205	3.1	78	639	488	181	1.6	1	161	19	653	160	493

See footnotes at end of table.

Table 43.—Number and percent of *full- and part-time* professional staff, October 1963, by *detailed field* and by degree; and estimated number needed for full-time replacements and additions, November 1963–October 1969, by *detailed field:* Institutions of seven selected types (three groups):[1] *Region III* [6]—Continued

Field	Staff, October 1963										Estimated further full-time staff needed November 1963–October 1969		
	Full-time					Part-time							
	Total		Bachelor's	Master's	Doctor's	Total		Bachelor's	Master's	Doctor's	Total	Replacements	Additions
	Number	Percent				Number	Percent						
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	ACADEMIC FIELDS [10]—Continued												
Education—Continued													
Educational administration and supervision and educational finance (both elementary and secondary)	171	.4	0	54	117	82	.7	0	71	11	186	33	153
Higher education (including junior college)	38	.1	0	0	38	0	0	0	0	0	11	2	9
Other [18]	248	.6	51	102	95	333	2.9	120	181	32	229	45	184
Engineering													
Total	*1,754*	*4.5*	*305*	*845*	*604*	*385*	*3.3*	*119*	*182*	*84*	*1,198*	*406*	*792*
Aeronautical (including aerospace)	57	.1	6	31	20	20	.2	4	8	8	65	18	47
Chemical	137	.4	3	33	101	30	.3	3	5	22	116	40	76
Civil	303	.8	29	176	98	48	.4	14	29	5	168	60	108
Electrical	365	.9	71	187	107	88	.8	24	48	16	279	99	180
Mechanical	318	.8	66	149	103	100	.9	36	53	11	226	62	164
Other [19]	574	1.5	130	269	175	99	.9	38	39	22	344	127	217

English and Journalism													
Total	*3,153*	*8.1*	*135*	*2,061*	*957*	*667*	*5.7*	*189*	*415*	*63*	*2,202*	*679*	*1,523*
English and literature (including comparative literature)	3,010	7.8	124	1,950	936	509	4.4	69	377	63	2,029	629	1,400
Journalism	143	.4	11	111	21	158	1.4	120	38	0	173	50	123
Fine and Applied Arts													
Total	*3,179*	*8.2*	*305*	*2,462*	*412*	*717*	*6.2*	*199*	*494*	*24*	*1,886*	*391*	*1,495*
Art, general	742	1.9	88	614	40	144	1.2	106	37	1	530	137	393
Music (including sacred music)	1,538	4.0	132	1,239	167	423	3.6	67	341	15	666	132	534
Speech and dramatic arts (including speech correction)	728	1.9	73	484	171	130	1.1	19	105	6	518	103	415
Other [20]	171	.4	12	125	34	20	.2	7	11	2	172	19	153
Foreign Languages, Linguistics, and Literature													
Total	*1,872*	*4.8*	*77*	*1,034*	*761*	*397*	*3.4*	*170*	*197*	*30*	*1,548*	*398*	*1,150*
Latin, Greek, and Hebrew	212	.5	4	94	114	71	.6	43	14	14	139	94	45
French (including philology and literature)	700	1.8	46	424	230	141	1.2	72	63	6	519	156	363
Spanish (including philology and literature)	560	1.4	3	316	241	84	.7	20	61	3	451	83	368
Germanic languages (including philology and literature)	350	.9	20	178	152	68	.6	30	33	5	296	56	240
Russian and other Slavic languages (including philology and literature)	34	.1	3	14	17	27	.2	4	23	0	82	6	76
Other [21]	16	0	1	8	7	6	.1	1	3	2	61	3	58
Forestry													
Total	*153*	*.4*	*13*	*65*	*75*	*1*	*0*	*0*	*1*	*0*	*124*	*28*	*96*
Geography													
Total	*258*	*.7*	*2*	*212*	*44*	*56*	*.5*	*2*	*43*	*11*	*228*	*33*	*195*
Health Professions [22]													
Total	*3,166*	*8.2*	*171*	*622*	*2,373*	*4,243*	*36.5*	*146*	*61*	*4,036*	*1,657*	*631*	*1,066*
Medical and dental technologies and medical therapies [23]	67	.2	37	24	6	149	1.3	103	5	41	64	18	46

See footnotes at end of table.

Table 43.—Number and percent of *full- and part-time* professional staff, October 1963, by *detailed field* and by degree; and estimated number needed for full-time replacements and additions, November 1963–October 1969, by *detailed field:* Institutions of seven selected types (three groups):[1] *Region III*[9]—Continued

Field	Staff, October 1963										Estimated further full-time staff needed November 1963–October 1969		
	Full-time					Part-time							
	Total		Bachelor's	Master's	Doctor's	Total		Bachelor's	Master's	Doctor's	Total	Replacements	Additions
	Number	Percent				Number	Percent						
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	ACADEMIC FIELDS [12]—Continued												
Health Professions [22]—Continued													
Dentistry, D.D.S. and D.M.D. (including graduate specialities)	214	.6	3	2	209	245	2.1	1	2	242	154	56	98
Medicine													
Medical specialities (including dermatology; internal medicine including allergy, cardiovascular disease, gastroenterology and pulmonary diseases; and pediatrics	772	2.0	15	9	748	1,338	11.5	1	0	1,337	250	121	129
Surgical specialities (including anesthesiology, colon and rectal surgery, general surgery, neurological surgery, obstetrics and gynecology, ophthalmology, orthopedic surgery, otolaryngology, plastic surgery, thoracic surgery, and urology)	622	1.6	10	2	610	1,536	13.2	0	1	1,535	262	139	123

Psychiatry and neurology	382	1.0	7	34	341	328	2.8	1	0	327	128	61	67
Other specialities (including administrative medicine, physical medicine and rehabilitation, preventive medicine, and radiology)	222	.6	5	19	198	333	2.9	0	4	329	125	48	77
Nursing [24]	564	1.5	75	449	40	54	.5	18	29	7	416	125	291
Pharmacy	104	.3	10	24	70	18	.2	11	5	2	98	18	80
Public health	91	.2	2	21	68	139	1.2	10	14	115	69	17	52
Veterinary medicine, D.V.M. (including clinical veterinary medical sciences)	89	.2	1	26	62	6	.1	0	0	6	113	22	91
Podiatry, optometry, osteopathy, hospital administration, and other health professions)	39	.1	6	12	21	97	.8	1	1	95	18	6	12
Home Economics [25]													
Total	*934*	*2.4*	*132*	*687*	*115*	*52*	*.4*	*30*	*21*	*1*	*492*	*258*	*234*
Law													
Total	*320*	*.8*	*156*	*91*	*73*	*84*	*.7*	*64*	*16*	*4*	*234*	*49*	*185*
Library Science													
Total	*154*	*.4*	*10*	*134*	*10*	*214*	*1.8*	*54*	*160*	*0*	*186*	*30*	*156*
Mathematical Subjects													
Total	*1,908*	*4.9*	*189*	*1,210*	*509*	*339*	*2.9*	*131*	*178*	*30*	*1,317*	*284*	*1,033*
Mathematics	1,835	4.7	184	1,195	456	318	2.7	130	169	19	1,233	269	964
Statistics (including actuarial science)	73	.2	5	15	53	21	.2	1	9	11	84	15	69
Philosophy (*Includes scholastic philosophy*)													
Total	*523*	*1.3*	*18*	*238*	*267*	*97*	*.8*	*4*	*39*	*54*	*371*	*30*	*341*
Physical Sciences													
Total	*2,625*	*6.8*	*165*	*971*	*1,489*	*474*	*4.1*	*187*	*136*	*151*	*1,820*	*375*	*1,445*
Chemistry [26]	1,498	3.9	107	512	879	299	2.6	125	90	84	928	258	670
Physics [27]	753	1.9	37	323	393	140	1.2	49	34	57	579	84	495

See footnotes at end of table.

Table 43.—Number and percent of *full- and part-time* professional staff, October 1963, by *detailed field* and by degree; and estimated number needed for full-time replacements and additions, November 1963–October 1969, by *detailed field:* Institutions of seven selected types (three groups):[1] *Region III*[6]—Continued

Field	Staff, October 1963										Estimated further full-time staff needed November 1963–October 1969		
	Full-time					Part-time							
	Total		Bach-elor's	Mas-ter's	Doc-tor's	Total		Bach-elor's	Mas-ter's	Doc-tor's	Total	Re-place-ments	Addi-tions
	Num-ber	Per-cent				Num-ber	Per-cent						
1	2	3	4	5	6	7	8	9	10	11	12	13	14
ACADEMIC FIELDS[10]—Continued													
Physical Sciences—Continued													
Geology	139	.4	2	21	116	27	.2	13	10	4	95	20	75
Geophysics, oceanography, and other earth sciences	93	.2	11	26	56	0	0	0	0	0	53	4	49
Astronomy, metallurgy, and other physical sciences	142	.4	8	89	45	8	.1	0	2	6	165	9	156
Psychology													
Total	*793*	*2.0*	*66*	*252*	*475*	*288*	*2.5*	*40*	*126*	*122*	*691*	*152*	*539*
Clinical; psychological counseling (including guidance and rehabilitation)[28]	146	.4	0	28	118	54	.5	21	12	21	140	23	117
Social (including personality)	105	.3	0	43	62	49	.4	9	23	17	110	27	83
Experimental (including physiological and comparative)	111	.3	1	2	108	54	.5	4	10	40	72	22	50
All others	431	1.1	65	179	187	131	1.1	6	81	44	369	80	289

Religion (*Includes religious education, Bible, and theology*)													
Total	*879*	*2.3*	*91*	*342*	*446*	*172*	*1.5*	*26*	*112*	*34*	*520*	*159*	*361*
Social Sciences													
Total	*3,795*	*9.8*	*58*	*1,840*	*1,897*	*774*	*6.7*	*75*	*539*	*160*	*3,207*	*720*	*2,487*
Basic:													
Anthropology	44	.1	2	8	34	3	0	0	1	2	60	4	56
Economics [29]	525	1.4	11	257	257	124	1.1	31	82	11	416	98	318
HISTORY—													
European	650	1.7	0	345	305	108	.9	15	65	28	477	82	395
United States	719	1.9	1	345	373	57	.5	3	46	8	373	97	276
All other	300	.8	2	165	133	30	.3	0	19	11	265	65	200
International relations, political science, and government	601	1.5	7	234	360	69	.6	6	34	29	480	97	383
Sociology	645	1.7	20	290	335	224	1.9	3	181	40	461	124	337
American civilization, area and regional studies, and all other basic social sciences [30]	130	.3	1	85	44	59	.5	12	34	13	138	4	134
Applied:													
Public administration	24	.1	0	4	20	1	0	0	0	1	23	2	21
Social work, (including social administration)	143	.4	13	99	31	98	.8	5	77	16	176	32	144
Foreign service programs and all other applied social sciences [31]	14	0	1	8	5	1	0	0	0	1	338	115	223
Trade and Industrial Training [32]													
Total	*177*	*.5*	*96*	*78*	*3*	*12*	*.1*	*11*	*1*	*0*	*87*	*3*	*84*
Broad General Curricula													
Total	*2*	*0*	*0*	*0*	*2*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
General Programs in:													
Humanities	0	0	0	0	0	0	0	0	0	0	0	0	0
Biological sciences	0	0	0	0	0	0	0	0	0	0	0	0	0
Physical sciences	2	0	0	0	2	0	0	0	0	0	0	0	0
Social sciences	0	0	0	0	0	0	0	0	0	0	0	0	0
All Other Fields													
Total	*0*	*0*	*0*	*0*	*0*	*7*	*0*	*0*	*3*	*4*	*5*	*0*	*5*

See footnotes at end of table.

Table 43.—Number and percent of *full- and part-time* professional staff, October 1963, by *detailed field* and by degree; and estimated number needed for full-time replacements and additions, November 1963–October 1969, by *detailed field:* Institutions of seven selected types (three groups):[1] *Region III*[6]—Continued

Field	Staff, October 1963										Estimated further full-time staff needed November 1963–October 1969		
	Full-time					Part-time							
	Total		Bachelor's	Master's	Doctor's	Total		Bachelor's	Master's	Doctor's	Total	Replacements	Additions
	Number	Percent				Number	Percent						
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	TECHNICAL AND SEMIPROFESSIONAL FIELDS [33]												
Total	904	100.0	391	365	148	69	100.0	30	6	33	674	81	593
Engineering-related Technologies													
Total	*143*	*15.8*	*96*	*47*	*0*	*18*	*26.1*	*18*	*0*	*0*	*107*	*5*	*102*
Aeronautical (aircraft design and maintenance, airport operation, etc.)	0	0	0	0	0	0	0	0	0	0	0	0	0
Chemical (chemical processes, leather, paper, plastics, rubber, etc.)	0	0	0	0	0	0	0	0	0	0	0	0	0
Civil (architectural, drafting and design, building and construction, structural, etc.)	4	.4	4	0	0	0	0	0	0	0	2	0	2
Electrical (electrical construction and wiring, electronics, instrumentation, radio and television, etc.)	54	6.0	35	19	0	0	0	0	0	0	54	1	53
General engineering (including engineering aide programs)	22	2.4	20	2	0	0	0	0	0	0	4	2	2

Industrial (production management, quality control, technical sales, etc.)	0	0	0	0	0	0	0	0	0	0	1	0	1
Mechanical (air conditioning, automotive, diesel, heating, horology, mechanical drafting and machine design, refrigeration, tool and die design, etc.)	56	6.2	33	23	0	18	26.1	18	0	0	43	1	42
Other (metallurgical, naval and marine, nuclear and atomic, petroleum, welding, etc.)	7	.8	4	3	0	0	0	0	0	0	3	1	2
Nonengineering-related Fields													
Total	*761*	*84.2*	*295*	*318*	*148*	*51*	*73.9*	*12*	*6*	*33*	*567*	*76*	*491*
Agriculture and forestry (animal science, horticulture and floriculture, industrial agriculture, etc.)	309	34.2	70	124	115	0	0	0	0	0	214	36	178
Applied, fine, and graphic arts (music, commercial art and advertising, fashion design, interior decorating, photography, printing, radio and television broadcasting, etc.)	176	19.5	76	100	0	1	1.4	1	0	0	100	3	97
Automatic data processing	18	2.0	17	1	0	1	1.4	0	1	0	43	0	43
Business and commerce (accounting, management, secretarial, technical office assistants, real estate, insurance, purchasing, selling, industrial or labor relations, etc.)	47	5.2	1	46	0	0	0	0	0	0	69	2	67
Health service (dental and medical technicians, dental and medical assistants, practical nursing, x-ray technicians, etc.)	157	17.4	109	19	29	48	69.6	11	4	33	104	27	77
Home economics	5	.6	3	2	0	1	1.4	0	1	0	2	0	2
Other	49	5.4	19	26	4	0	0	0	0	0	35	8	27

See footnotes on next page.

FOOTNOTES TO TABLE 43

[0] Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, and West Virginia.

[1] *Group I:* Universities and technological schools; *Group II:* Liberal arts colleges and teachers colleges; *Group III:* 2-year institutions (junior colleges, technical schools, and semiprofessional schools.

[2] Institutions were instructed to report *only* professional staff in positions *normally requiring* a baccalaureate or higher degree.

[3] Includes registrars for professional schools, separate colleges, and branches.

[4] Does NOT include deans of separate colleges, who were reported in their academic fields.

[5] Head librarian and all professional librarians.

[6] Vice-president for student affairs, dean of students, etc.

[7] Includes deans of men, deans of women, and their assistants.

[8] Includes registered nurses.

[9] Food service, housing, bookstore, student union, etc.

[10] Institutions were instructed to report *only* professional instructional and research staff for those fields in which courses are *normally creditable* toward a baccalaureate or higher degree in either the local institution or by transfer to another institution.

[11] Does NOT include agricultural education, forestry, botany; entomology, genetics, etc; plant pathology and physiology; home economics and home economics education; or landscape architecture.

[12] Does NOT include plant pathology.

[13] Does NOT include plant physiology.

[14] Does NOT include general programs in biological sciences.

[15] Does NOT include economics.

[16] Does NOT include trade and industrial training.

[17] Includes agricultural, art, business and commercial, distributive, home economics, and music education.

[18] Includes adult, audiovisual, nursing education, etc.

[19] Does NOT include agricultural and architectural engineering.

[20] Does NOT include general programs in humanities.

[21] Does NOT include area studies.

[22] Does NOT include "basis sciences" of the health professions.

[23] Does NOT include programs not creditable toward a baccalaureate degree.

[24] Does NOT include nursing education and programs in practical nursing.

[25] Does NOT include home economics education.

[26] Does NOT include biochemistry.

[27] Does NOT include biophysics.

[28] Does NOT include educational counseling and guidance.

[29] Does NOT include agricultural economics.

[30] Does NOT include general programs in social sciences.

[31] Does NOT include agricultural economics and industrial relations.

[32] Does NOT include industrial arts education and trade and industrial education.

[33] Institutions were instructed to report *only* professional instructional and research staff for those fields in which courses are NOT normally creditable toward a baccalaureate or higher degree in either the local institution or by transfer to another institution; and NOT to include *adult education* and *craftsman training*.

Table 44.—Number and percent of *full- and part-time* professional staff, by institutions of seven types (three groups),[1]

Field	Full-time						
	Number, by degree				Percent, by degree		
	Total	Bachelor's	Master's	Doctor's	Bachelor's	Master's	Doctor's
1	2	3	4	5	6	7	8
Total, all fields	**59,853**	**7,847**	**26,549**	**25,457**	**13.1**	**44.4**	**42.5**
Administrative							
Total	*9,516*	*3,711*	*4,312*	*1,493*	*39.0*	*45.3*	*15.7*
General	1,843	692	684	467	37.6	37.1	25.3
Academic affairs	3,196	702	2,036	458	22.0	63.7	14.3
Student services	2,450	786	1,113	551	32.1	45.5	22.5
Business affairs	2,027	1,531	479	17	75.5	23.6	.9
Academic							
Total	*49,160*	*3,706*	*21,603*	*23,851*	*7.5*	*44.0*	*48.5*
Agriculture and forestry	2,067	208	721	1,138	10.1	34.9	55.0
Biological sciences	4,084	137	897	3,050	3.3	22.0	74.7
Business and commerce	2,934	210	1,689	1,035	7.2	57.6	35.2
Education	7,278	705	3,600	2,973	9.7	49.5	40.8
Engineering (including architecture)	3,492	578	1,494	1,420	16.5	42.8	40.7
English and journalism	4,221	181	2,625	1,415	4.3	62.2	33.5
Fine and applied arts	4,373	388	2,900	1,085	8.9	66.3	24.8
Foreign languages	2,106	118	922	1,066	5.6	43.8	50.6
Geography	345	6	137	211	1.7	38.7	59.6
Health professions	3,536	408	845	2,283	11.5	23.9	64.6
Home economics	773	89	551	133	11.5	71.3	17.2
Law	315	77	130	108	24.4	41.3	34.3
Library science	165	11	122	32	6.7	73.9	19.4
Mathematical subjects	2,160	145	1,149	866	6.7	53.2	40.1
Philosophy	550	7	175	368	1.3	31.8	66.9
Physical sciences	4,296	200	1,116	2,980	4.7	26.0	69.3
Psychology	1,197	18	315	864	1.5	26.3	72.2
Religion	401	34	224	173	8.5	55.8	35.7
Basic social sciences	4,235	98	1,601	2,536	2.3	37.8	59.9
Applied social sciences	356	27	212	117	7.6	59.5	32.9
All other	267	61	178	28	22.8	66.7	10.5
Technical and Semiprofessional							
Total	*1,177*	*430*	*634*	*113*	*36.5*	*53.9*	*9.6*
Engineering-related	613	237	313	63	38.7	51.0	10.3
Nonengineering-related	654	193	321	50	34.2	56.9	8.9

[1] *Group I:* Universities and technological schools; *Group II:* Liberal arts colleges and teachers colleges; *Group III:* 2-year institutions—junior colleges, technical schools, and semiprofessional schools.

large field and by degree; total, and part-time as percent of total, in by large field: Region IV,[2] October 1963

Part-time							Total	Part-time as percent of total
Number, by degree				Percent, by degree				
Total	Bachelor's	Master's	Doctor's	Bachelor's	Master's	Doctor's		
9	10	11	12	13	14	15	16	17
14,845	4,637	5,238	4,970	31.2	35.3	33.5	74,698	19.9
1,095	*346*	*288*	*461*	*31.6*	*26.3*	*42.1*	*10,611*	*10.3*
126	19	102	5	15.1	81.0	3.9	1,969	6.4
181	80	75	26	44.2	41.4	14.4	3,377	5.4
701	168	105	428	24.0	15.0	61.0	3,151	22.2
87	79	6	2	90.8	6.9	2.3	7,164	1.2
13,008	*3,676*	*4,838*	*4,494*	*28.3*	*37.2*	*34.5*	*62,168*	*20.9*
66	15	20	31	22.7	30.3	47.0	2,133	3.1
586	142	113	331	24.2	19.3	56.5	7,670	7.6
1,298	607	591	100	46.8	45.5	7.7	4,232	30.7
1,301	474	595	232	36.4	45.8	17.8	8,579	15.2
752	237	403	112	31.5	53.6	14.9	4,244	17.7
900	372	482	46	41.3	53.6	5.1	5,121	17.6
1,533	854	603	76	55.7	39.3	5.0	5,906	26.0
490	183	248	59	37.3	50.6	12.1	2,596	18.9
62	35	14	13	56.5	22.5	21.0	416	14.9
2,736	66	105	2,565	2.4	3.8	93.8	6,272	43.6
193	70	114	9	36.3	59.0	4.7	966	20.0
88	35	18	35	39.8	20.4	39.8	403	21.8
134	67	64	3	50.0	47.8	2.2	299	44.8
674	165	411	98	24.5	61.0	14.5	2,834	23.8
135	5	66	64	3.7	48.9	47.4	685	19.7
547	114	233	200	20.8	42.6	36.6	4,843	11.3
334	34	177	173	10.2	38.0	51.8	1,531	21.8
152	4	114	34	2.6	75.0	22.4	553	27.5
800	117	434	279	14.6	54.3	31.1	5,035	15.9
174	60	71	43	34.5	40.8	24.7	530	32.8
53	20	12	21	37.7	22.7	39.6	320	16.6
742	*615*	*112*	*15*	*82.9*	*15.1*	*2.0*	*1,919*	*38.7*
401	336	60	5	83.8	15.0	1.2	1,014	39.5
341	279	52	10	81.8	15.3	2.9	905	37.7

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[2] Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oklahoma, Oregon, Texas, Utah, Washington, and Wyoming.

Table 45.—Number and percent of *full- and part-time* professional staff, October 1963, by *detailed field* and by degree; and estimated number needed for full-time replacements and additions, November 1963–October 1969, by *detailed field:* Institutions of seven selected types (three groups):[1] *Region IV*[6]

Field	Staff, October 1963										Estimated further full-time staff needed November 1963–October 1969		
	Full-time					Part-time							
	Total		Bachelor's	Master's	Doctor's	Total		Bachelor's	Master's	Doctor's	Total	Replacements	Additions
	Number	Percent				Number	Percent						
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	SUMMARY												
Grand total, all fields	59,853	100.0	7,847	26,549	25,457	14,845	100.0	4,637	5,238	4,970	44,079	10,909	33,170
Total, administrative	9,516	15.9	3,711	4,312	1,493	1,095	7.4	346	288	461	6,121	1,968	4,153
Total, academic	49,160	82.1	3,706	21,603	23,851	13,008	87.6	3,676	4,838	4,494	36,458	8,785	27,673
Total, technical and semiprofessional	1,177	2.0	430	634	113	742	5.0	615	112	15	1,500	156	1,344
	ADMINISTRATIVE FIELDS [2]												
Total	9,516	100.0	3,711	4,312	1,493	1,095	100.0	346	288	461	6,121	1,968	4,153
General													
Total	*1,843*	*19.4*	*692*	*684*	*467*	*126*	*11.5*	*19*	*102*	*5*	*1,260*	*373*	*887*
Chief administrative officer	297	3.1	4	70	223	17	1.6	0	17	0	93	90	3
Officers for public relations, planning and development, alumni, etc	541	5.7	234	183	124	39	3.6	3	36	0	422	99	323

Admissions and recruitment officers	228	2.4	30	176	22	4	.4	1	1	2	200	25	175
Registrars and assistant registrars [3]	301	3.2	147	121	33	56	5.1	11	45	0	184	92	92
Other	476	5.0	277	134	65	10	.9	4	3	3	301	67	234
Academic Affairs													
Total	*3,196*	*33.6*	*702*	*2,036*	*458*	*181*	*16.5*	*80*	*75*	*26*	*1,896*	*537*	*1,359*
Chief academic officer, academic vice-president, dean of faculties, academic dean, dean of instruction, etc [4]	473	5.0	4	253	216	26	2.4	1	18	7	446	81	365
Graduate dean and assistant graduate deans	147	1.5	0	21	126	31	2.8	1	18	12	113	55	58
Librarian [5]	2,385	25.1	629	1,696	60	112	10.2	74	35	3	1,188	367	821
Other	191	20.0	69	66	56	12	1.1	4	4	4	149	34	115
Student Services													
Total	*2,450*	*25.7*	*786*	*1,113*	*551*	*701*	*64.0*	*168*	*105*	*428*	*1,830*	*602*	*1,228*
Chief student services officer [6]	282	3.0	9	193	80	16	1.5	0	14	2	187	80	107
Assistant student services officers [7]	555	5.8	127	322	106	28	2.6	6	15	7	338	155	183
Counseling, advisory, and testing personnel	631	6.6	60	416	155	130	11.9	62	43	25	606	151	455
Health services personnel [8]	738	7.8	471	75	192	518	47.3	96	28	394	529	176	353
Other	244	2.6	119	107	18	9	.8	4	5	0	170	40	130
Business Affairs													
Total	*2,027*	*21.3*	*1,531*	*479*	*17*	*87*	*7.9*	*79*	*6*	*2*	*1,195*	*456*	*739*
Chief business officer	281	3.0	190	85	6	20	1.8	20	0	0	114	83	31
Accounting and purchasing officers	422	4.4	309	112	1	5	.5	1	4	0	298	53	245
Physical plant management staff (including engineers)	304	3.2	250	54	0	12	1.1	12	0	0	181	65	116
Auxiliary services management staff [9]	697	7.3	520	170	7	43	3.9	42	1	0	444	179	265
Other	323	3.4	262	58	3	7	.6	4	1	2	158	76	82
	ACADEMIC FIELDS [10]												
Total	**49,160**	**100.0**	**3,706**	**21,603**	**23,851**	**13,008**	**100.0**	**3,676**	**4,838**	**4,494**	**36,458**	**8,785**	**27,673**
Agriculture ***(Includes agricultural economics and agricultural engineering)***													
Total	*1,894*	*3.9*	*202*	*641*	*1,051*	*49*	*.4*	*11*	*13*	*25*	*663*	*276*	*387*

See footnotes at end of table.

Table 45.—Number and percent of *full- and part-time* professional staff, October 1963, by *detailed field* and by degree; and estimated number needed for full-time replacements and additions, November 1963–October 1969, by *detailed field:* Installations of seven selected types (three groups):[1] *Region IV*[9]—Continued

Field	Staff, October 1963										Estimated further full-time staff needed November 1963–October 1969		
	Full-time					Part-time							
	Total		Bachelor's	Master's	Doctor's	Total		Bachelor's	Master's	Doctor's	Total	Replacements	Additions
	Number	Percent				Number	Percent						
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	ACADEMIC FIELDS[10]—Continued												
Architecture ***(Includes architectural engineering)***[11]													
Total	*328*	*.7*	*134*	*180*	*14*	*130*	*1.0*	*75*	*53*	*2*	*223*	*97*	*126*
Biological Sciences ***(Includes all "basic sciences" of the health professions)***													
Total	*4,084*	*8.3*	*137*	*897*	*3,050*	*586*	*4.5*	*142*	*113*	*331*	*3,007*	*642*	*2,365*
General biology	526	1.1	23	281	222	199	1.5	84	84	31	550	91	459
General botany	449	.9	10	99	340	25	.2	9	4	12	305	87	218
General zoology	728	1.5	13	220	495	60	.5	21	6	33	570	105	465
Anatomy and histology	267	.5	18	71	178	45	.3	1	1	43	174	34	140
Bactriology, microbiology, mycology, parasitology, and virology	483	1.0	15	46	422	50	.4	11	5	34	378	.63	315

Biochemistry	295	.6	13	20	262	45	.3	1	1	43	269	56	213
Pathology [12]	233	.5	15	14	204	68	.5	3	2	63	97	19	78
Pharmacology	119	.2	3	7	109	19	.1	0	3	16	66	24	42
Physiology [13]	211	.4	6	33	172	24	.2	8	3	13	143	37	106
Biophysics, cytology, ecology, embryology, entomology, genetics, plant pathology, plant physiology, and other biological sciences [14]	773	1.6	21	106	646	51	.4	4	4	43	455	126	329
Business and Commerce													
Total	*2,934*	*6.0*	*210*	*1,689*	*1,035*	*1,298*	*10.0*	*607*	*591*	*100*	*2,219*	*601*	*1,618*
Accounting, auditing, and taxation	619	1.3	25	412	182	331	2.5	136	171	24	532	132	400
Finance, investments, and law [15]	333	.7	18	169	146	188	1.4	81	89	18	296	82	214
Secretarial studies	649	1.3	95	406	148	222	1.7	134	85	3	438	89	349
Marketing, retailing, wholesaling, and advertising	351	.7	27	158	166	99	.8	58	33	8	245	65	180
Personnel management and industrial relations	305	.6	11	117	177	126	1.0	24	91	11	264	78	186
Business and commerce, general, and not otherwise classified	677	1.4	34	427	216	332	2.6	174	122	36	444	155	289
Education													
Total	*7,278*	*14.8*	*705*	*3,600*	*2,973*	*1,301*	*10.0*	*474*	*595*	*232*	*4,867*	*1,056*	*3,811*
Health education, physical education, and recreation (including athletic coaches)	2,825	5.7	380	1,876	569	390	3.0	229	147	14	1,786	410	1,376
Educational psychology (including special education, educational counseling, and guidance)	705	1.4	6	146	553	167	1.3	6	97	64	380	79	301
Industrial arts education and trade and industrial education [16]	501	1.0	30	341	130	145	1.1	117	28	0	332	64	268
Elementary education, nursery and kindergarten, and early childhood education (including art education and music education)	1,096	2.2	113	488	495	180	1.4	63	103	14	730	179	551
Secondary education (including junior high school) [17]	1,055	2.1	55	344	656	229	1.8	46	131	52	784	194	590
Educational administration and supervision and educational finance (both elementary and secondary)	343	.7	0	86	257	74	.6	0	13	61	227	78	149

See footnotes at end of table.

Table 45.—Number and percent of *full- and part-time* professional staff, October 1963, by *detailed field* and by degree; and estimated number needed for full-time replacements and additions. November 1963–October 1969, by *detailed field:* Institutions of seven selected types (three groups):[1] *Region IV*[9]—Continued

Field	Staff, October 1963										Estimated further full-time staff needed November 1963–October 1969		
	Full-time					Part-time							
	Total		Bachelor's	Master's	Doctor's	Total		Bachelor's	Master's	Doctor's	Total	Replacements	Additions
	Number	Percent				Number	Percent						
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	ACADEMIC FIELDS[10]—Continued												
Education—Continued													
Higher education (including junior college)	77	.2	8	22	47	2	0	0	0	2	39	7	32
Other [18]	676	1.4	113	297	266	114	.9	13	76	25	589	45	544
Engineering													
Total	*3,164*	*6.4*	*444*	*1,314*	*1,406*	*622*	*4.8*	*162*	*350*	*110*	*2,053*	*662*	*1,391*
Aeronautical (including aerospace)	167	.3	24	46	97	50	.4	7	20	23	158	41	117
Chemical	191	.4	6	33	152	21	.2	2	7	12	163	44	119
Civil	694	1.4	97	343	254	139	1.1	55	73	11	379	147	232
Electrical	762	1.6	102	301	359	128	1.0	39	71	18	544	159	385
Mechanical	570	1.2	62	289	219	104	.8	26	58	20	350	110	240
Other [19]	780	1.6	153	302	325	180	1.4	33	121	26	459	161	298
English and Journalism													
Total	*4,221*	*8.6*	*181*	*2,625*	*1,415*	*900*	*6.9*	*372*	*482*	*46*	*3,234*	*665*	*2,569*

English and literature (including comparative literature)	3,884	7.9	142	2,400	1,342	777	6.0	293	439	45	2,991	609	2,382
Journalism	337	.7	39	225	73	123	.9	79	43	1	243	56	187
Fine and Applied Arts													
Total	*4,373*	*8.9*	*388*	*2,900*	*1,085*	*1,533*	*11.8*	*854*	*603*	*76*	*3,374*	*833*	*2,541*
Art, general	1,075	2.2	114	844	117	370	2.8	260	105	5	843	148	695
Music (including sacred music)	1,757	3.6	149	1,179	429	898	6.9	487	373	38	1,312	393	919
Speech and dramatic arts (including speech correction)	1,326	2.7	61	786	479	218	1.7	88	104	26	960	256	704
Other [20]	215	.4	64	91	60	47	.4	19	21	7	259	36	223
Foreign Languages, Linguistics, and Literature													
Total	*2,106*	*4.3*	*118*	*922*	*1,066*	*490*	*3.8*	*183*	*248*	*59*	*1,842*	*422*	*1,420*
Latin, Greek, and Hebrew	125	.3	3	31	91	13	.1	5	4	4	77	14	63
French (including philology and literature)	561	1.1	15	297	249	117	.9	35	78	4	481	106	375
Spanish (including philology and literature)	644	1.3	48	304	292	173	1.3	79	75	19	591	147	444
Germanic languages (including philology and literature)	442	.9	19	193	230	113	.9	51	48	14	382	94	288
Russian and other Slavic languages (including philology and literature)	129	.3	15	37	77	46	.4	6	33	7	120	23	97
Other [21]	205	.4	18	60	127	28	.2	7	10	11	191	38	153
Forestry													
Total	*173*	*.4*	*6*	*80*	*87*	*17*	*.1*	*4*	*7*	*6*	*70*	*21*	*49*
Geography													
Total	*354*	*.7*	*6*	*137*	*211*	*62*	*.5*	*35*	*14*	*13*	*328*	*48*	*280*
Health Professions [22]													
Total	*3,536*	*7.2*	*408*	*845*	*2,283*	*2,736*	*21.0*	*66*	*105*	*2,565*	*2,441*	*527*	*1,914*
Medical and dental technologies and medical therapies [23]	41	.1	5	20	16	8	.1	1	0	7	41	10	31
Dentistry, D.D.S. and D.M.D. (including graduate specialties)	392	.8	28	12	352	282	2.2	16	8	258	274	37	237

See footnotes at end of table.

Table 45.—Number and percent of *full- and part-time* professional staff, October 1963, by ***detailed field*** and by degree; and estimated number needed for full-time replacements and additions, November 1963–October 1969, by ***detailed field:*** Institutions of seven selected types (three groups):[1] *Region IV*[10]—Continued

Field	Staff, October 1963										Estimated further full-time staff needed November 1963–October 1969		
	Full-time					Part-time							
	Total		Bachelor's	Master's	Doctor's	Total		Bachelor's	Master's	Doctor's	Total	Replacements	Additions
	Number	Percent				Number	Percent						
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	ACADEMIC FIELDS[11]—Continued												
Health Professions[12]—Continued													
Medical specialties (including dermatology; internal medicine including allergy, cardiovascular disease, gastroenterology and pulmonary diseases; and pediatrics)	636	1.3	33	19	584	891	6.8	1	4	886	484	64	420
Surgical specialties (including anesthesiology, colon and rectal surgery, general surgery, neurological surgery, obstetrics and gynecology; ophthalmology, orthopedic surgery, otolaryngology, plastic surgery, thoracic surgery, and urology)	406	.8	21	15	370	781	6.0	0	5	776	360	49	311
Psychiatry and neurology	282	.6	16	18	248	297	2.3	0	7	290	210	44	166
Other specialities (including administrative medicine, physical medicine and rehabilitation, preventive medicine, and radiology)	340	.7	64	31	245	225	1.7	1	4	220	259	27	232

Nursing [24]	906	1.8	198	679	29	50	.4	16	28	6	449	176	273
Pharmacy	153	.3	8	18	127	32	.2	10	14	8	76	24	52
Public health	115	.2	9	15	91	125	1.0	4	21	100	92	15	77
Veterinary medicine, D.V.M. (including clinical veterinary medical sciences)	241	.5	24	12	205	10	.1	2	2	6	167	60	107
Podiatry, optometry, osteopathy, hospital administration, and other health professions)	24	0	2	6	16	35	.3	15	12	8	29	21	8
Home Economics [25]													
Total	*773*	*1.6*	*89*	*551*	*133*	*193*	*1.5*	*70*	*114*	*9*	*627*	*173*	*454*
Law													
Total	*315*	*.6*	*77*	*130*	*108*	*88*	*.7*	*35*	*18*	*35*	*199*	*67*	*132*
Library Science													
Total	*165*	*.3*	*11*	*122*	*32*	*134*	*1.0*	*67*	*64*	*3*	*251*	*51*	*200*
Mathematical Subjects													
Total	*2,160*	*4.4*	*145*	*1,149*	*866*	*674*	*5.2*	*165*	*411*	*98*	*1,904*	*373*	*1,531*
Mathematics	2,034	4.1	139	1,121	774	668	5.1	165	407	96	1,800	346	1,454
Statistics (including actuarial science)	126	.3	6	28	92	6	0	0	4	2	104	27	77
Philosophy (*Includes scholastic philosophy*)													
Total	*550*	*1.1*	*7*	*175*	*368*	*135*	*1.0*	*5*	*66*	*64*	*425*	*100*	*325*
Physical Sciences													
Total	*4,296*	*8.7*	*200*	*1,116*	*2,980*	*547*	*4.2*	*114*	*233*	*200*	*3,187*	*833*	*2,354*
Chemistry [26]	1,818	3.7	51	454	1,313	217	1.7	36	99	82	1,325	375	950
Physics [27]	1,400	2.8	78	419	903	155	1.2	31	60	64	1,101	304	797
Geology	417	.8	7	87	323	57	.4	6	28	23	254	64	190
Geophysics, oceanography, and other earth sciences	311	.6	30	53	228	19	.1	0	2	17	238	49	189
Astronomy, metallurgy, and other physical sciences	350	.7	34	103	213	99	.8	41	44	14	269	41	228

See footnotes at end of table.

Table 45.—Number and percent of *full- and part-time* professional staff, October 1963, by *detailed field* and by degree; and estimated number needed for full-time replacements and additions, November 1963–October 1969, by *delailed field:* Institutions of seven selected types (three groups):[1] *Region IV*[9]—Continued

Field	Staff, October 1963										Estimated further full-time staff needed November 1963–October 1969		
	Full-time					Part-time							
	Total		Bachelor's	Master's	Doctor's	Total		Bachelor's	Master's	Doctor's	Total	Replacements	Additions
	Number	Percent				Number	Percent						
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	ACADEMIC FIELDS[10]—Continued												
Psychology													
Total	*1,197*	*2.4*	*18*	*315*	*864*	*334*	*2.6*	*34*	*127*	*173*	*1,037*	*220*	*817*
Clinical; psychological counseling (including guidance and rehabilitation)[28]	249	.5	4	11	234	74	.6	11	6	57	197	40	157
Social (including personality)	161	.3	2	52	107	68	.5	2	54	12	155	20	135
Experimental (including physiological and comparative)	255	.5	3	8	244	23	.2	1	1	21	218	39	179
All other	532	1.1	9	244	279	169	1.3	20	66	83	467	121	346
Religion ***(Includes religious education, Bible, and theology)***													
Total	*401*	*.8*	*34*	*224*	*143*	*152*	*1.2*	*4*	*114*	*34*	*309*	*154*	*155*

Social Sciences													
Total	*4,591*	*9.3*	*125*	*1,813*	*2,653*	*974*	*7.5*	*177*	*505*	*292*	*3,857*	*919*	*2,938*
Basic:													
Anthropology	250	.5	16	50	184	48	.4	11	16	21	245	48	197
Economics [29]	763	1.6	33	304	426	163	1.3	16	66	81	622	165	457
HISTORY—													
European	529	1.1	6	231	292	42	.3	7	19	16	439	93	346
United States	818	1.7	10	333	475	138	1.1	23	105	10	609	141	468
All other	353	.7	2	129	222	69	.5	2	38	29	348	58	290
International relations, political science, and government	716	1.5	21	240	455	172	1.3	16	105	51	650	204	446
Sociology	684	1.4	6	243	435	141	1.1	41	64	36	527	116	411
American civilization, area and regional studies, and all other basic social sciences [30]	122	.2	4	71	47	27	.2	1	21	5	176	29	147
Applied:													
Public administration	141	.3	24	60	57	108	.8	57	38	13	115	37	78
Social work, (including social administration)	199	.4	2	143	54	65	.5	2	33	30	117	27	90
Foreign service programs and all other applied social sciences [31]	16	0	1	9	6	1	0	1	0	0	9	1	8
Trade and Industrial Training [32]													
Total	*181*	*.4*	*50*	*124*	*7*	*19*	*.1*	*19*	*0*	*0*	*155*	*30*	*125*
Broad General Curricula													
Total	*53*	*.1*	*0*	*53*	*0*	*19*	*.1*	*0*	*1*	*18*	*89*	*0*	*89*
General Programs in:													
Humanities	0	0	0	0	0	0	0	0	0	0	18	0	18
Biological sciences	0	0	0	0	0	0	0	0	0	0	17	0	17
Physical sciences	0	0	0	0	0	19	.1	0	1	18	19	0	19
Social sciences	53	.1	0	53	0	0	0	0	0	0	35	0	35
All Other Fields													
Total	*33*	*.1*	*11*	*1*	*21*	*15*	*.1*	*1*	*11*	*3*	*97*	*15*	*82*

See footnotes at end of table.

Table 45.—Number and percent of *full- and part-time* professional staff, October 1963, by *detailed field* and by degree; and estimated number needed for full-time replacements and additions, November 1963–October 1969, by *detailed field:* Installations of seven selected types (three groups):[1] *Region IV*[6]—Continued

Field	Staff, October 1963										Estimated further full-time staff needed November 1963–October 1969		
	Full-time					Part-time							
	Total		Bachelor's	Master's	Doctor's	Total		Bachelor's	Master's	Doctor's	Total	Replacements	Additions
	Number	Percent				Number	Percent						
1	2	3	4	5	6	7	8	9	10	11	12	13	14
TECHNICAL AND SEMIPROFESSIONAL FIELDS[33]													
Total	1,177	100.0	430	634	113	742	100.0	615	112	15	1,500	156	1,344
Engineering-related Technologies													
Total	*613*	*52.1*	*237*	*313*	*63*	*401*	*54.2*	*336*	*60*	*5*	*883*	*93*	*790*
Aeronautical (aircraft design and maintenance, airport operation, etc.)	42	3.6	31	10	1	15	2.0	6	9	0	36	11	25
Chemical (chemical processes, leather, paper, plastics, rubber, etc.)	24	2.0	7	11	6	10	1.4	7	2	1	23	4	19
Civil (architectural, drafting and design, building and construction, structural, etc.)	87	7.4	27	57	3	60	8.1	53	6	1	142	9	133
Electrical (electrical construction and wiring, electronics, instrumentation, radio and television, etc.)	204	17.3	63	121	20	148	20.0	120	28	0	247	41	206
General engineering (including engineering aide programs)	11	.9	3	8	0	12	1.6	9	3	0	61	5	56

Industrial (production management, quality control, technical sales, etc.)	15	1.3	2	7	6	34	4.6	25	8	1	29	3	26
Mechanical (air conditioning, automotive, diesel, heating, horology, mechanical drafting and machine design, refrigeration, tool and die design, etc.)	185	15.7	100	83	2	113	15.3	112	1	0	288	6	282
Other (metallurgical, naval and marine, nuclear and atomic, petroleum, welding, etc.)	45	3.8	4	16	25	9	1.2	4	3	2	57	14	43
Nonengineering-related Fields													
Total	*564*	*47.9*	*193*	*321*	*50*	*341*	*46.1*	*279*	*52*	*10*	*617*	*63*	*554*
Agriculture and forestry (animal science, horticulture and floriculture, industrial agriculture, etc.)	73	6.2	11	41	21	1	.1	1	0	0	37	7	30
Applied, fine, and graphic arts (music, commercial art and advertising, fashion design, interior decorating, photography, printing, radio and television broadcasting, etc.)	59	5.0	27	32	0	48	6.5	36	12	0	91	4	87
Automatic data processing	17	1.4	1	16	0	14	1.9	11	3	0	166	0	166
Business and commerce (accounting, management, secretarial, technical office assistants, real estate, insurance, purchasing, selling, industrial or labor relations, etc.)	80	6.8	37	43	0	86	11.6	73	13	0	62	5	57
Health service (dental and medical technicians, dental and medical assistants, practical nursing, x-ray technicians, etc.)	123	10.5	32	76	15	36	4.9	17	13	6	152	20	132
Home economics	61	5.2	6	55	0	2	.3	1	1	0	76	23	53
Other	151	12.8	79	58	14	154	20.8	140	10	4	33	4	29

See footnotes on next page.

FOOTNOTES TO TABLE 45

[a] Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oklahoma, Oregon, Texas, Utah, Washington, and Wyoming.

[1] *Group I:* Universities and technological schools; *Group II:* Liberal arts colleges and teachers colleges; *Group III:* 2-year institutions (junior colleges, technical schools, and semiprofessional schools.

[2] Institutions were instructed to report *only* professional staff in positions *normally requiring* a baccalaureate or higher degree.

[3] Includes registrars for professional schools, separate colleges, and branches.

[4] Does NOT include deans of separate colleges, who were reported in their academic fields.

[5] Head librarian and all professional librarians.

[6] Vice-president for student affairs, dean of students, etc.

[7] Includes deans of men, deans of women, and their assistants.

[8] Includes registered nurses.

[9] Food service, housing, bookstore, student union, etc.

[10] Institutions were instructed to report *only* professional instructional and research staff for those fields in which courses are *normally creditable* toward a baccalaureate or higher degree in either the local institution or by transfer to another institution.

[11] Does NOT include agricultural education, forestry, botany; entomology, genetics, etc; plant pathology and physiology; home economics and home economics education; or landscape architecture.

[12] Does NOT include plant pathology.

[13] Does NOT include plant physiology.

[14] Does NOT include general programs in biological sciences.

[15] Does NOT include economics.

[16] Does NOT include trade and industrial training.

[17] Includes agricultural, art, business and commercial, distributive, home economics, and music education.

[18] Includes adult, audiovisual, nursing education, etc.

[19] Does NOT include agricultural and architectural engineering.

[20] Does NOT include general programs in humanities.

[21] Does NOT include area studies.

[22] Does NOT include "basis sciences" of the health professions.

[23] Does NOT include programs not creditable toward a baccalaureate degree.

[24] Does NOT include nursing education and programs in practical nursing.

[25] Does NOT include home economics education.

[26] Does NOT include biochemistry.

[27] Does NOT include biophysics.

[28] Does NOT include educational counseling and guidance.

[29] Does NOT include agricultural economics.

[30] Does NOT include general programs in social sciences.

[31] Does NOT include agricultural economics and industrial relations.

[32] Does NOT include industrial arts education and trade and industrial education.

[33] Institutions were instructed to report *only* professional instructional and research staff for those fields in which courses are NOT normally creditable toward a baccalaureate or higher degree in either the local institution or by transfer to another institution; and NOT to include *adult education* and *craftsman training*.

4

Table 46.—Total, full- , and part-time enrollment, October 1963; institutions' projections for October 1969; and projected 1963–69 percent increase, by region: Seven selected types (three groups)[1] of institutions, aggregate United States

Kind of enrollment	October 1963 (actual)	October 1969 (projected)	Percent increase 1963–69 (projected)
Total, all regions	**4,362,897**	**7,030,255**	**61.1**
Region I [2]			
Total	*1,289,469*	*2,247,948*	*74.3*
Full-time	810,476	1,349,250	66.5
Part-time	478,993	898,698	87.6
Region II [3]			
Total	*1,259,303*	*2,015,719*	*60.1*
Full-time	849,569	1,397,616	64.5
Part-time	409,734	618,103	50.9
Region III [4]			
Total	*669,618*	*989,137*	*47.7*
Full-time	548,666	803,981	46.5
Part-time	120,952	185,156	53.1
Region IV [5]			
Total	*1,144,507*	*1,777,451*	*55.3*
Full-time	776,530	1,285,280	65.5
Part-time	367,977	492,171	33.8

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[1] *Group I:* Universities and technological schools; *Group II:* Liberal arts colleges and teachers colleges; *Group III:* 2-year institutions—junior colleges, technical schools, and semiprofessional schools.

[2] Connecticut, Delaware, District of Columbia, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont.

[3] Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin.

[4] Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, Tennessee, Virginia, and West Virginia.

[5] Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oklahoma, Oregon, Utah, Washington, and Wyoming.

Table 47.—Percent distribution of answers given by 330 institutions of 7 selected types (3 groups)[1] to 11 assumptions, by region: 1963–64 through 1969–70

Assumption and region	Percent distribution			
	Will increase	Will decrease	Will remain about the same	Institution made no assumption
1	2	3	4	5
1. Class size:				
I[2]	43.6	1.0	49.5	5.9
II[3]	55.3	2.1	42.6	0
III[4]	62.7	3.4	32.2	1.7
IV[5]	57.9	1.3	39.5	1.3
2. Number of students per professional staff member:				
I	36.7	9.9	46.5	6.9
II	47.9	10.6	40.4	1.1
III	49.1	8.5	40.7	1.7
IV	55.2	5.3	39.5	0
3. Number of semester or quarter hours comprising full-time teaching load:				
I	2.0	20.8	69.3	7.9
II	1.1	24.5	72.3	2.1
III	1.7	27.1	67.8	3.4
IV	1.3	23.7	67.1	7.9
4. Percentage of total professional staff time devoted to research:				
I	47.0	1.0	35.0	17.0
II	55.3	0	34.1	10.6
III	57.6	0	28.8	13.6
IV	44.7	1.3	40.8	13.2
5. Percentage of total professional staff time devoted to administration:				
I	24.8	6.9	58.4	9.9
II	27.6	12.8	59.6	0
III	20.3	13.6	62.7	3.4
IV	15.8	7.9	76.3	0
6. Changes in institutional policies and practices regarding salaries, promotions, tenure, retirement, and "fringe benefits" will affect the attractiveness of an academic career in such a way that faculty turnover:				
I	5.0	34.6	51.5	8.9
II	4.2	39.4	51.1	5.3
III	5.1	55.9	35.6	3.4
IV	5.3	23.6	65.8	5.3
7. Percentage of professional staff employed on part-time basis:				
I	15.8	24.8	54.4	5.0
II	17.0	19.1	59.6	4.3
III	10.2	22.0	64.4	3.4
IV	18.4	13.2	64.5	3.9
8. Usual retirement age for professional staff:				
I	9.9	4.0	77.2	8.9
II	3.2	2.1	90.4	4.3
III	5.1	3.4	89.8	1.7
IV	5.3	1.3	92.1	1.3
9. Percentage of professional staff who are women:				
I	46.6	0	36.6	16.8
II	30.9	2.1	56.4	10.6
III	30.5	5.1	59.3	5.1
IV	36.8	5.3	48.7	9.2
10. Level of preparation of new faculty:				
I	39.6	5.0	46.5	8.9
II	40.4	9.6	47.9	2.1
III	57.6	3.4	39.0	0
IV	32.9	4.0	61.8	1.3
11. Number of weeks for which faculty is employed during the calendar year (at the responding institution itself):				
I	11.9	2.0	74.2	11.9
II	31.9	1.1	62.8	4.2
III	27.1	3.4	67.8	1.7
IV	15.8	2.6	80.3	1.3

See footnotes on next page.

[1] By group, the 330 institutions giving answers to the assumptions were divided as follows: *Group I* (universities and technological schools)—197. *Group II* (liberal arts colleges and teachers colleges)—106. *Group III* (2 year institutions: junior colleges, technical schools, and semiprofessional schools)—37.

[2] Connecticut, Delaware, District of Columbia, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont (101 responding institutions).

[3] Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin (94 responding institutions).

[4] Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, Tennessee, Virginia, and West Virginia (59 responding institutions).

[5] Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oklahoma, Oregon, Texas, Utah, Washington, and Wyoming (76 responding institutions).

Appendix

The Survey Questionnaire

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
OFFICE OF EDUCATION
Washington, D.C. 20202

STATUS OF PROFESSIONAL STAFF OCTOBER 1963 AND ESTIMATED DEMAND FOR PROFESSIONAL STAFF NOVEMBER 1963 THROUGH OCTOBER 1969 FOR RESIDENT AND NON-RESIDENT PROGRAMS IN INSTITUTIONS OF HIGHER EDUCATION

To The President

There is growing concern in our society regarding the manpower shortage, particularly in those fields which demand highly qualified personnel. Institutions of higher education occupy a focal point in this situation since they are both producers and employers of highly educated individuals. At the present time there are few national data available regarding the manpower needs of colleges and universities.

The Division of Higher Education is launching a study of staffing in institutions of higher education to determine both the current status of and the estimated demand for professional staff in administrative, academic, and technical and semi-professional fields. The findings of this study should be helpful to administrators responsible for faculty appointments, to officers of graduate and professional schools, and to other administrative officers in higher education. Also, they should be of value to students who are preparing for careers in higher education. The study is under the immediate direction of Dr. James F. Rogers, Specialist for Faculty Staffing. Dr. John H. Russel, Acting Chief of Faculty and Student Services Section, and I will serve in a general supervisory capacity.

Attached is a set of directions for the official who will coordinate the study on your campus. A postage-paid card is enclosed so that you can report immediately to us the name of the official designated as coordinating officer on your campus.

Several copies of the forms with instructions are provided for gathering the data requested. Please complete and return one copy each of the questionnaire and the assumptions before January 31, 1964. A postage-paid envelope is enclosed. Thank you for providing information which will enable us to report on the staffing needs of higher education.

Sincerely yours,

R Orin Cornett
R. Orin Cornett
Acting Assistant Commissioner
for Higher Education

Ernest V. Hollis
Ernest V. Hollis, Director
College and University
Administration Branch
Division of Higher Education

DIRECTIONS FOR INSTITUTIONAL COORDINATOR

1. BRANCH INSTITUTIONS. Please indicate on the questionnaire cover sheet (page 1) whether or not your report includes or excludes information for branches of the institution. Include only those branches which are located in the United States and the outlying possessions (Canal Zone, Guam and Puerto Rico). (New branches which will be established between now and October 1969 may be included. This should be indicated on the cover sheet, page 1.)

2. WHOLE NUMBERS. All entries are to be in whole numbers. EACH STAFF MEMBER IS TO BE REPORTED IN ONLY ONE FIELD, THAT OF HIS GREATEST RESPONSIBILITY. It is recognized that this will require some arbitrary decisions, but the overall effect on a study of this scope should be negligible.

3. ORGANIZATION OF SURVEY. The survey consists of three sections.

   A. SECTION I, page 2, requests information on the administrative staff of the institution.

   B. SECTION II, pages 3-7, requests information regarding the instructional and research staff (including professional staff for separately budgeted research) for academic fields (fields in which courses are normally creditable toward a baccalaureate or higher degree in either the local institution or by transfer to another institution).

   C. SECTION III, page 8, asks for information regarding the instructional and research staff (including professional staff for separately budgeted research) for technical and semi-professional fields (fields in which courses are not normally creditable toward a baccalaureate or higher degree in either the local institution or by transfer to another institution). Work which the local institution considers to be ADULT EDUCATION or CRAFTSMAN TRAINING should not be included.

4. QUESTIONNAIRE COVER SHEET, page 1.

   A. Professional Staff. Entries are to be made after the questionnaire has been completed. Entries will be the appropriate column "Totals" appearing on pages 2, 7, and 8 of the questionnaire. The total professional staff which you report on page 1, as the total for column 2, should be reasonably consistent with that which is reported in the Office of Education survey of "Faculty and Other Professional Staff: Fall Term 1963-1964," form number: OE-2019 (7-63), which is being sent to your president. The comparable figure for total professional staff can be determined by subtracting the total in item 3-b from the total in item 11-a on form number OE-2019 (7-63).

      1. Column 1 lists the sections of the study.

      2. Column 2 includes totals of full-time professional staff for October 1963. (Enter totals from column 5 appearing on pages 2, 7, and 8 of the questionnaire.)

      3. Column 3 includes totals of part-time professional staff for October 1963. (Enter totals from column 9 appearing on pages 2, 7, and 8 of the questionnaire.)

4. Column 4 includes totals of full-time replacement (R) staff through October 1969. (Enter totals from column 10 appearing on pages 2, 7, and 8 of the questionnaire.)

5. Column 5 includes totals of full-time additional (A) staff through October 1969. (Enter totals from column 11 appearing on pages 2, 7, and 8 of the questionnaire.)

6. Column 6 is the sum of column 4 plus column 5.

B. Enrollment and Enrollment Estimates.

1. Procedure. It is requested that the enrollment reported for October 1963 be reasonably consistent with that which your registrar reports in the Office of Education "Survey of Opening Fall Enrollment: 1963," form number OE-2026 (7-63) or OE-2026-1 (7-63). In form number OE-2026 (7-63), the comparable figure for total enrollment, full-time and part-time, is the sum of the totals in item 1.c. and item 3. For form number OE-2026-1 (7-63), the comparable figure for total enrollment is the total in item 3. It is requested that enrollment estimates for October 1969 be determined by the institution's administrative officers on the basis of recent institutional studies, trends, and other factors which are unique to the institution. It is important that these overall enrollment estimates be made known at the outset to those staff members who will be working with you on the study.

2. Students to be included. Enrollment for October 1963 and estimated enrollment for October 1969 (to be entered on the bottom of the questionnaire cover sheet, page 1) should include undergraduate and graduate students, including those in the technical and semi-professional fields.

Full-time and part-time students:

a. Full-time student. As applied to undergraduate and first professional enrollment (including "special and unclassified" students taking work at a comparable level), a full-time student is one who is carrying at least 75 percent of a normal student-hour load. By "normal student-hour load" is meant: number of credit-hours required for graduation, divided by the number of semesters or terms normally taken for graduation (exclusive of summer sessions).

As applied to graduate students in liberal arts and sciences and students beyond the first professional degree (including "special and unclassified" students taking work at a comparable level), a full-time student is one whose academic load--in terms of course-work or other required activity (such as a thesis)--is at least 75 percent of that normally recommended for such students. Time spent by teaching fellows should be included only if such teaching is performed as a requirement for a degree. Employment which is not a part of the prescribed activity for an advanced degree should not be counted as part of the time spent on graduate work.

b. A part-time student is one who is carrying an academic schedule lighter than that of a full-time student (as defined in a above).
(Note: These definitions are recommended for guidance rather than rigid application, since local conditions may make various minor modifications appropriate.)

5. ADMINISTRATIVE REVIEW. Due to the critical importance of the estimated enrollment for October 1969, (on bottom of questionnaire cover sheet, page 1), and the estimates of demand for professional staff under columns 4 and 5 of the cover sheet, page 1, and under columns 10 and 11 on pages 2-8 of the questionnaire, it is requested that these data be reviewed by the president of the institution. Arbitrary decisions may be required in order to adjust departmental estimates on the questionnaire (and questionnaire totals) and totals on the cover sheet, page 1, to overall program and budgetary realities. Please explain to the president that since the data specifically exclude those faculty members who may transfer to professional positions in other institutions of higher education during the six-year period of the estimates, the staff totals will reflect only partially the total recruitment needs for the institution.

6. ASSUMPTIONS. The assumptions for the local institution should be arrived at in consultation with the responsible officials. It is requested that these assumptions be brought to the attention of staff members who are working on this study. ONE COPY OF THE LIST OF ASSUMPTIONS IS TO BE RETURNED WITH THE QUESTIONNAIRE.

7. COMPLETION OF FORMS. Copies of the questionnaire with instructions are enclosed. ONLY ONE COPY EACH OF THE QUESTIONNAIRE AND THE LIST OF ASSUMPTIONS SHOULD BE RETURNED TO THE OFFICE OF EDUCATION. An addressed postage-paid envelope is enclosed for your use in returning the questionnaire and the list of assumptions to the Office of Education. The questionnaire will be returned via air mail if you so indicate on the envelope. It is very important that we have your completed questionnaire by January 31, 1964.

8. OFFICE OF EDUCATION CONTACT. Address inquiries and return reports to Dr. James F. Rogers, Division of Higher Education, U.S. Office of Education, Washington, D.C. 20202. Telephone numbers (collect): WOrth 2-1045; WOrth 2-6742.

INSTRUCTIONS
CURRENT STATUS OF AND ESTIMATED DEMAND FOR PROFESSIONAL STAFF FOR RESIDENT AND NON-RESIDENT PROGRAMS IN INSTITUTIONS OF HIGHER EDUCATION

1. TIME PERIOD. Report the professional staff for October 1963. Estimated demands for full-time Replacement (R) and Additional (A) professional staff are requested for the period November 1963 through October 1969.

2. BRANCH INSTITUTIONS. Include only those branches which are located in the United States or outlying parts (Canal Zone, Guam, Puerto Rico).

3. STAFF TO BE INCLUDED. Include in the report full-time and part-time members of the "Professional Staff" for October 1963. Include only full-time professional staff in the estimates for 1963-69. EACH STAFF MEMBER IS TO BE REPORTED IN ONLY ONE FIELD, THAT OF HIS GREATEST RESPONSIBILITY. (Use Whole Numbers Only.) Include professional staff members who are serving on a "contributed service" basis. Professional staff members who are on leave are to be considered in determining replacement needs, but individuals who are filling the positions at the present time, if any, are to be included in the current staff.

   A. The organization of the survey is as follows:

      1. SECTION I -- ADMINISTRATION

      2. SECTION II -- INSTRUCTION AND RESEARCH (Academic Fields) for fields in which courses are normally creditable toward a baccalaureate or higher degree in either the local institution or by transfer to another institution

      3. SECTION III -- INSTRUCTION AND RESEARCH (Technical and Semi-Professional Fields) for fields in which courses are not normally creditable toward a baccalaureate or higher degree in either the local institution or by transfer to another institution. Work which the local institution considers to be ADULT EDUCATION or CRAFTSMAN TRAINING should not be included.

         a. Technical and Semi-Professional -- Engineering-Related

b. Technical and Semi-Professional -- Non-Engineering-Related

B. Administrative Staff. (SECTION I) The professional administrative staff includes those administrative staff members whose positions normally require a baccalaureate or higher degree. In most cases their responsibilities extend across departmental lines in smaller institutions or divisional or college lines of larger institutions. (For example, the academic vice president is to be included in the administrative staff, but the dean of the college of arts and sciences is to be included in his academic field.) Administrative staff who have the baccalaureate or higher degrees, but who occupy positions which do not normally require a baccalaureate, are not to be included. (Clerical, maintenance and custodial staffs are not to be included.)

C. Instructional and Research Staff. (SECTION II and SECTION III) The professional staff for instruction and research includes all instructional and research staff (including professional staff for separately budgeted research and for research centers) who hold the rank of instructor (or equivalent, such as research associate) or above, including department heads, deans of separate colleges or instructional divisions within an institution, and directors and professional staff members of research activities. (Junior staff members such as assistant instructors, teaching fellows, teaching assistants, and laboratory assistants, are not to be included.) Institutions which provide teacher education programs are to include supervisory, demonstration, or "critic" teachers who are paid principally by the institution. (Staff members who are provided by the military for reserve training programs are not to be included.) Instructional and research staff become a single entry in each academic field; therefore, it is unnecessary to separate them.

4. PROFESSIONAL STAFF BY EMPLOYMENT STATUS AND LEVEL OF PREPARATION AS OF OCTOBER 1963. COLUMNS 2-9. EACH STAFF MEMBER IS TO BE ENTERED IN ONLY ONE FIELD, THAT OF HIS GREATEST RESPONSIBILITY. Instructional and research staff become a single combined entry in each field. (Use Whole Numbers Only.)

Below are definitions for reporting staff under this heading on the questionnaire:

A. Full-Time and Part-Time Status

1. Full-time staff members are those employed on a full-time basis by the institution.

2. Part-time staff members are those employed on a part-time basis by the institution.

B. Level of Preparation.

The following letters indicate the highest earned degrees of staff members as of October 1963:

"B" includes those professional staff members having preparation of less than the master's degree--including those who have no degree, as well as those whose degree status is not known.

"M" includes those professional staff members who hold the master's degree but less than an earned doctorate.

"D" includes those professional staff members who hold the earned doctorate.

5. DEMAND FOR FULL-TIME REPLACEMENT (R), COLUMN 10, AND ADDITIONAL (A), COLUMN 11, PROFESSIONAL STAFF. In these columns on the questionnaire enter the estimated demands for full-time professional staff only. EACH STAFF MEMBER IS TO BE ENTERED IN ONLY ONE FIELD, THAT OF HIS GREATEST RESPONSIBILITY. (Use Whole Numbers Only.)

"R" Replacements, Column 10 -- refers to the estimated demand for full-time professional staff needed for replacements for the period November 1963 through October 1969. Include the number who are expected to retire plus, on the basis of the institution's experience during the last six years, the estimated number of the professional staff who will leave college administration, teaching, or research for any reason. (Do not include staff members whom you expect to accept positions in these areas at other institutions of higher education, or staff members who will retire but whose positions will not be refilled.) Consider that some of the professional staff members who will be employed during the six-year period will have to be replaced before the end of that time, just as in the case of the experience of the last six years.

"A" Additional Professional Staff, Column 11 -- refers to the estimated demand for additional full-time professional staff which will be needed to fill new positions during the period of November 1963 through October 1969. (Positions entered under "R" should not be included here.) Enter all new positions which you expect to have between November 1963 and October 1969, including positions which are presently unfilled. (These new positions usually result from increased enrollments or program changes.)

6. INAPPLICABLE SECTIONS. Omit those fields in which the institution does not have professional staff and does not plan to have any during the six-year period. Please check carefully to see that fields are not unintentionally omitted.

7. OFFICE OF EDUCATION CONTACT. Address inquiries and return reports to Dr. James F. Rogers, Division of Higher Education, U.S. Office of Education, Washington, D.C. 20202. An addressed gummed label, requiring no postage, is enclosed for your use in returning the materials to the Office of Education.

8. RETURN OF FORM. It is very important that we have your completed questionnaire by January 31, 1964.

OE-2102 (11-63)

Budget Bureau No. 51-6309.1
Approval Expires: 12/31/64

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
OFFICE OF EDUCATION
WASHINGTON, D.C. 20202

STATUS OF PROFESSIONAL STAFF OCTOBER 1963
AND ESTIMATED DEMAND FOR PROFESSIONAL STAFF NOVEMBER 1963 THROUGH OCTOBER 1969
FOR RESIDENT AND NON-RESIDENT PROGRAMS IN INSTITUTIONS OF HIGHER EDUCATION

If your institution has NO branches, check here ☐

NAME OF INSTITUTION ____________________
ADDRESS ____________________
____

COORDINATOR'S NAME ____________________
TITLE ____________________
PHONE NUMBER ____________________

If your institution has branches include data for them below:

This Report Includes Branches as Follows:

This Report Excludes Branches as Follows:

Summary of Data on Professional Staff
(To be filled in after questionnaire has been completed)

FIELDS	Professional Staff October 1963		Full-Time Replacement (R) Staff - November 1963 Through October 1969	Full-Time Additional (A) Staff - November 1963 Through October 1969	Total Full-Time (R) and (A) Staff-November 1963 Through October 1969 (Cols. 4 plus 5)
	Full-Time	Part-Time			
1	2	3	4	5	6
Administrative fields -- professional administrative staff in positions normally requiring a baccalaureate or higher degree -- totals from page 2, columns 5, 9, 10, 11, and 12 respectively					
Academic fields -- instructional and research staff for fields in which courses are normally creditable toward a baccalaureate or higher degree -- totals from page 7, columns 5, 9, 10, 11, and 12 respectively					

FIELDS	Professional Staff October 1963		Full-Time Replacement (R) Staff - November 1963 Through October 1969	Full-Time Additional (A) Staff - November 1963 Through October 1969	Total Full-Time (R) and (A) Staff-November 1963 Through October 1969 (Cols. 4 plus 5)
	Full-Time	Part-Time			
1	2	3	4	5	6
Technical and semi-professional fields -- instructional and research staff for fields in which courses are not normally creditable toward a baccalaureate or higher degree -- totals from page 8, columns 5, 9, 10, 11, and 12 respectively					
Total professional staff -- Grand Totals from page 8, columns 5, 9, 10, 11, and 12 respectively					

INSTITUTION'S PROJECTED ENROLLMENT

(See specific instructions, item 4-B, in "Directions to Institutional Coordinator")

Year	Full-Time Enrollment	Part-Time Enrollment	Total Enrollment - Cols. 2 plus 3
1	2	3	4
October 1963			
October 1969			

President's Signature

CURRENT STATUS OF AND ESTIMATED DEMAND FOR PROFESSIONAL STAFF FOR RESIDENT AND NON-RESIDENT PROGRAMS

NOTE: Please read attached instructions before completing this form

SECTION I - ADMINISTRATION

ADMINISTRATIVE FIELDS (Report only professional administrative staff in positions normally requiring a baccalaureate or higher degree)	Professional Staff of the Institution and Level of Preparation as of October 1963								Estimated Demand for Full-Time Replacement (R) and Additional Professional Staff (A)		
	Number of Full-Time Staff				Number of Part-Time Staff				November 1963 Through October 1969		
	B	M	D	Total Cols. 2-4	B	M	D	Total Cols. 6-8	R	A	Total Cols. 10-11
1	2	3	4	5	6	7	8	9	10	11	12
ADMINISTRATIVE STAFF -- GENERAL (professional level only)											
601 Chief administrative officer (president, chancellor, etc.)											
602 Officers for public relations, planning and development, alumni, etc.											
603 Admissions and recruitment officers											
604 Registrars and assistant registrars (including registrars for professional schools, separate colleges and branches)											
605 Other professional general administrative staff											
ADMINISTRATIVE STAFF -- ACADEMIC AFFAIRS (professional level only)											
701 Chief academic officer, academic vice president, dean of faculties, academic dean, dean of instruction, etc. (Except: report deans of separate colleges in their academic fields)											
702 Graduate dean and assistant graduate deans											
703 Librarians (head librarian and all professional librarians)											
704 Other professional academic administrative staff											
ADMINISTRATIVE STAFF -- STUDENT SERVICES (professional level only)											
801 Chief student services officer (vice president for student affairs, dean of students, etc.)											
802 Assistant student services officers (including deans of men, deans of women, and their assistants)											
803 Counseling, advisory and testing personnel											
804 Health services personnel (including registered nurses)											
805 Other professional student services administrative staff											
ADMINISTRATIVE STAFF -- BUSINESS AFFAIRS (professional level only)											
901 Chief business officer											
902 Accounting and purchasing officers											
903 Physical plant management staff (including engineers)											
904 Auxiliary services management staff (food service, housing, bookstore, student union, etc.)											
905 Other professional administrative staff for business affairs											
TOTAL: (SECTION I -- ADMINISTRATION											

NOTE: Please read attached instructions
before completing this form

SECTION II - INSTRUCTION AND RESEARCH (ACADEMIC FIELDS)
FOR INSTRUCTOR, OR EQUIVALENT, AND ABOVE

ACADEMIC FIELDS (Report only professional instructional and research staff for those fields in which courses are normally creditable toward a baccalaureate or higher degree in either the local institution or by transfer to another institution)	Professional Staff of the Institution and Level of Preparation as of October 1963								Estimated Demand for Full-Time Replacement (R) and Additional Professional Staff (A)		
	Number of Full-Time Staff				Number of Part-Time Staff				November 1963 Through October 1969		
	B	M	D	Total Cols. 2-4	B	M	D	Total Cols. 6-8	R	A	Total Cols. 10-11
1	2	3	4	5	6	7	8	9	10	11	12
AGRICULTURE 1001 Agriculture (incl. agricultural economics and agricultural engineering) Except: Agricultural education (report under No. 2359) Forestry (report under No. 3800) Botany (report under No. 1707) Entomology, genetics, etc. (report under No. 1755) Plant pathology and physiology (report under No. 1707) Home economics (report under No. 4701) Home economics education (report under No. 2359) Landscape architecture (report under No. 1400)											
ARCHITECTURE (incl. architectural engineering) 1400											
BIOLOGICAL SCIENCES (include under Biological Sciences all "basic sciences" of the health professions)											
1704 General biology											
1707 General botany											
1710 General zoology											
1713 Anatomy and histology											
1716 Bacteriology, microbiology, mycology, parasitology, and virology											
1721 Biochemistry											
1742 Pathology (Except: report plant pathology under No. 1755)											
1745 Pharmacology											
1748 Physiology (Except: report plant physiology under No. 1755)											
1755 Biophysics, cytology, ecology, embryology, entomology, genetics, plant pathology, plant physiology and other biological sciences (Except: report general programs in biological sciences under No. 8304)											
BUSINESS AND COMMERCE											
2001 Accounting, auditing and taxation											
2002 Finance, investments and law (Except: report economics under No. 7713)											
2007 Secretarial studies											
2051 Marketing, retailing, wholesaling and advertising											
2052 Personnel management and industrial relations											
2056 Business and commerce, general, and not otherwise classified											

EDUCATION	
2301	Health education, physical education, and recreation (incl. athletic coaches)
2310	Educational psychology (incl. special education, educational counseling and guidance)
2333	Industrial arts education and trade and industrial education (Note: report trade and industrial training under No. 8000)
2350	Elementary education, nursery and kindergarten, and early childhood education (incl. art education and music education)
2359	Secondary education--includes junior high school (incl. agricultural education, art education, business and commercial education, distributive education, home economics education, and music education)
2371	Educational administration and supervision and educational finance (incl. elementary and secondary)
2381	Higher education (incl. junior college education)
2383	Other educational fields (incl. adult education, audio-visual education, nursing education, etc.)
ENGINEERING	
2602	Aeronautical engineering (incl. aerospace engineering)
2614	Chemical engineering
2621	Civil engineering
2632	Electrical engineering (incl. electronic engineering)
2660	Mechanical engineering
2699	Other engineering fields (Except: report agricultural engineering under No. 1001, and architectural engineering under No. 1400)
ENGLISH AND JOURNALISM	
2901	English and literature (incl. comparative literature)
2904	Journalism
FINE AND APPLIED ARTS	
3201	Art, general
3204	Music (incl. sacred music)
3207	Speech and dramatic arts (incl. speech correction)
3210	Other fine and applied arts (Except: report general programs in humanities under No. 8301)
FOREIGN LANGUAGES, LINGUISTICS, AND LITERATURE	
3511	Latin, Greek, and Hebrew
3520	French (incl. philology and literature)
3526	Spanish (incl. philology and literature)
3540	Germanic languages (incl. philology and literature)

ACADEMIC FIELDS (Report only professional instructional and research staff for those fields in which courses are normally creditable toward a baccalaureate or higher degree in either the local institution or by transfer to another institution)	Professional Staff of the Institution and Level of Preparation as of October 1963								Estimated Demand for Full-Time Replacement (R) and Additional Professional Staff (A)		
	Number of Full-Time Staff				Number of Part-Time Staff				November 1963 Through October 1969		
	B	M	D	Total Cols. 2-4	B	M	D	Total Cols. 6-8	R	A	Total Cols. 10-11
1	2	3	4	5	6	7	8	9	10	11	12
3580 Russian and other Slavic languages (incl. philology and literature)											
3590 Other foreign languages and linguistics (excl. area studies)											
FORESTRY 3800											
GEOGRAPHY 4100											
HEALTH PROFESSIONS (Report "basic sciences" of the health professions under Biological Sciences)											
4404 Medical and dental technologies and medical therapies (Except: report all programs not creditable toward baccalaureate degree under No. 9115)											
4407 Dentistry, D.D.S. and D.M.D. (incl. graduate specialities)											
MEDICINE											
4409 Medical specialities (incl. dermatology; internal medicine incl. allergy, cardiovascular disease, gastroenterology and pulmonary diseases; and pediatrics)											
4411 Surgical specialities (incl. anesthesiology, colon and rectal surgery, general surgery, neurological surgery, obstetrics and gynecology, ophthalmology, orthopedic surgery, otolaryngology, plastic surgery, thoracic surgery, and urology)											
4414 Psychiatry and neurology											
4416 Other specialities (incl. administrative medicine, physical medicine and rehabilitation, preventative medicine, and radiology)											
4419 Nursing (Except: report programs in nursing education under No. 2383 and programs in practical nursing under No. 9115)											
4431 Pharmacy											
4437 Public health											
4443 Veterinary medicine, D.V.M. (incl. clinical veterinary medical sciences)											
4455 Podiatry, optometry, osteopathy, hospital administration, and other health professions											
HOME ECONOMICS 4701 All home economics fields (Except: report home economics education under No. 2359)											
LAW 5000											
LIBRARY SCIENCE 5300											

MATHEMATICAL SUBJECTS												
5601	Mathematics											
5607	Statistics (incl. actuarial science)											
PHILOSOPHY												
6501	Philosophy (incl. scholastic philosophy)											
PHYSICAL SCIENCES												
6807	Chemistry (Except: report biochemistry under No. 1721)											
6816	Physics (Except: report biophysics under No. 1755)											
6819	Geology											
6822	Geophysics, oceanography, and other earth sciences											
6831	Astronomy, metallurgy, meteorology, and other physical sciences											
PSYCHOLOGY												
7102	Clinical psychology and psychological counseling (incl. guidance and rehabilitation) (Except: report "educational counseling and guidance" under No. 2310											
7104	Social psychology (incl. personality)											
7106	Experimental psychology (incl. physiological and comparative)											
7108	Psychology, all other											
RELIGION												
7401	All religion fields (incl. religious education, Bible, and theology)											
SOCIAL SCIENCES												
	BASIC SOCIAL SCIENCES											
7707	Anthropology											
7713	Economics (Except: report agricultural economics under No. 1001)											
	History											
7716	European history											
7717	United States history											
7718	History, all other											
7719	International relations, political science and government											
7725	Sociology											
7728	American civilization, area and regional studies and all other basic social sciences (Except: report general programs in social sciences under No. 8307)											
	APPLIED SOCIAL SCIENCES											
7740	Public administration											
7743	Social work (incl. social administration)											
7746	Foreign service programs and all other applied social sciences (Except: report agricultural economics under No. 1001, and industrial relations under No. 2052)											

ACADEMIC FIELDS (Report only professional instructional and research staff for those fields in which courses are normally creditable toward a baccalaureate or higher degree in either the local institution or by transfer to another institution)	Professional Staff of the Institution and Level of Preparation as of October 1963								Estimated Demand for Full-Time Replacement (R) and Additional Professional Staff (A)		
	Number of Full-Time Staff				Number of Part-Time Staff				November 1963 Through October 1969		
	B	M	D	Total Cols. 2-4	B	M	D	Total Cols. 6-8	R	A	Total Cols. 10-11
1	2	3	4	5	6	7	8	9	10	11	12
TRADE AND INDUSTRIAL TRAINING											
8000 (**Note**: report industrial arts education and trade and industrial education under No. 2333)											
BROAD GENERAL CURRICULA											
8301 General programs in humanities											
8304 General programs in biological sciences											
8305 General programs in physical sciences											
8307 General programs in social sciences											
ALL OTHER FIELDS - LIST: 8400											

TOTAL: SECTION II - INSTRUCTION AND RESEARCH, ACADEMIC FIELDS

NOTE: Please read attached instructions before completing this form

SECTION III - INSTRUCTION AND RESEARCH (TECHNICAL AND SEMI-PROFESSIONAL FIELDS) FOR INSTRUCTOR, OR EQUIVALENT, AND ABOVE

TECHNICAL AND SEMI-PROFESSIONAL FIELDS (Report only professional instructional and research staff for those fields in which courses are not normally creditable toward a baccalaureate or higher degree in either the local institution or by transfer to another institution. Adult education and craftsman training are not to be included.)	Professional Staff of the Institution and Level of Preparation as of October 1963								Estimated Demand for Full-Time Replacement (R) and Additional Professional Staff (A)		
	Number of Full-Time Staff				Number of Part-Time Staff				November 1963 Through October 1969		
	B	M	D	Total Cols. 2-4	B	M	D	Total Cols. 6-8	R	A	Total Cols. 10-11
1	2	3	4	5	6	7	8	9	10	11	12
A. ENGINEERING-RELATED FIELDS											
9001 Aeronautical technologies (aircraft design and maintenance, airport operation, etc.)											
9002 Chemical technologies (chemical processes, leather, paper, plastics, rubber, etc.)											
9003 Civil technologies (archetictural, drafting and design, building and construction, structural, etc.)											

9004	Electrical technologies (electrical construction and wiring, electronics, instrumentation, radio and television technology, etc.)											
9005	General engineering technologies (incl. engineering aide programs)											
9006	Industrial technologies (production management, quality control, technical sales, etc.)											
9007	Mechanical technologies (air conditioning, automotive, diesel, heating, horology, mechanical drafting and machine design, refrigeration, tool and die design, etc.)											
9008	Other engineering-related technologies (metallurgical, naval and marine, nuclear and atomic, petroleum, welding, etc.)											
B.	NON-ENGINEERING-RELATED FIELDS											
9111	Agriculture and forestry (animal science, horticulture and floriculture, industrial agriculture, etc.)											
9112	Applied, fine, and graphic arts (music, commercial art and advertising, fashion design, interior decorating, photography, printing, radio and television broadcasting, etc.)											
9113	Automatic data processing											
9114	Business and commerce (accounting, management, secretarial, technical office assistants, real estate, insurance, purchasing, selling, industrial or labor relations, etc.)											
9115	Health service (dental and medical technicians, dental and medical assistants, practical nursing, X-ray technicians, etc.)											
9116	Home economics											
9117	Other non-engineering-related fields											
	TOTAL: SECTION III - INSTRUCTION AND RESEARCH, TECHNICAL AND SEMI-PROFESSIONAL FIELDS											
	GRAND TOTAL: SUM OF TOTALS FOR SECTIONS I, II, III											

(END)

NAME OF INSTITUTION ______________________________

ADDRESS ______________________________

ASSUMPTIONS ON WHICH THIS STUDY HAS BEEN MADE AT THIS INSTITUTION

(PLEASE CHECK APPROPRIATE ITEMS)

	Increase	Decrease	Remain About Same	Assumption Not Made At This Institution
1. Class size will				
2. Number of students per professional staff member will				
3. Number of semester or quarter hours comprising a full-time teaching load will				
4. Percentage of total professional staff time devoted to research will				
5. Percentage of total professional staff time devoted to administration will				
6. Changes in institutional policies and practices regarding salaries, promotions, tenure, retirement, and "fringe benefits" will affect the attractiveness of an academic career in such a way as to cause faculty turnover to				
7. Percentage of professional staff employed on part-time basis will				
8. Usual retirement age for professional staff will				
9. Percentage of professional staff who are women will				
10. Level of preparation of new faculty will				
11. Number of weeks for which faculty is employed during the year at this institution will				
12. Other assumptions (List)				

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